# **VOL.11 NO.1**



# The Asian Society of Stoma Rehabilitation

Proceedings of the 11<sup>th</sup> Congress in Osaka, 2019

アジアストーマ \*National Script of the Host Country リハビリテーション

# The logo designates

- 1. Stoma symbolizing colon/urinary tract with mucosal folds,
- 2. Excretion of feces or urine from the stoma,
- 3. Ostomy everted through the abdominal wall,
- 4. Handmade artificiality with irregular or asymmetric shape of the stoma,
- 5. Society philosophy of Asian friendship and Collaboration among nurses, surgeons and co-medicals with using different three colors and Asian style letters of ASSR,
- 6. Continuous Cure & Care by symbols of three Cs.
- 7. This is not a red crescent, but we will learn from humanitarian laws and keep young like a new moon.

# **ASIAN OSTOMY:**

# Proceedings of the Asian Society of Stoma Rehabilitation Vol.11 No.1

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# 11th Asian Society of Stoma Rehabilitation

# **ASSR**

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Paper

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# **Lessons from the Past of ASSR**

Katsuhisa Shindo, MD, PhD.

Professor emeritus of Kindai University, PL General Hospital, Osaka, Japan

Correspondence to: ditto addressed to 13-4, Ohnodai 7-chome, Osaka-Sayama, 589-0023 Osaka, Japan. E-mail: katsuhisashindo0@gmail.com

### Introduction

Our history of the Asian Society o Stoma Rehabilitation (ASSR) shall be recognized to proceed further for our future activity.

### Methods

Minutes of each council meeting were reviewed, and all our congress proceeding journals of ASIAN OSTO-MY were read through. My twenty-year experience as one of the founders and the director general of the society may contribute discussion on our future business.

### Results

- 1. We have 22 years history since 1997, when the 7<sup>th</sup> biennial congress of the Asian Federation of Colo-Proctology (AFCP) organized a symposium of Asian Stoma Rehabilitation (pre-AFSR) in Taipei. The first executive meeting was held in Beijing in 1999. The philosophy of our society was discussed. In the first assembly, Asian stoma cases were presented for discussion and then we joined to the World Council of Enterostomal Therapists (WCET) Congress in Singapore in 2000<sup>1)</sup>. At that time, however, we proposed WCET our future joint meeting, which was rejected, and they organized the Asia-Pacific ET Nurses Association (APETNA) which held the first meeting without surgeons 5 years later.
- 2. We have three purposes: 1) Mutual understanding and sharing of our experience and technique, 2) Scientific basis and discussion of dittos, 3) Sincerity and fair friendship, among professionals of SR. The background is to realize differences of Asian from Western in life style including culture, economy, religion, and even in health affairs including our professional relationship. In Asia, nurse and surgeon collaborate to provide ostomate the best rehabilitation. Our society promotes not only research and education for stoma rehabilitation through forums and publications\*, but also social business and social engineering for ostomate's welfare through the political negotiation and institution 2). \*See item 8 below.
- 3. The first ASSR Congress was held in Osaka, April 2002. At that time we accepted the Bylaws, which you can read on our ASSR home-page, https://www.streams.co.jp/assr/. Since then 10 biennial congresses have been held

- in 10 countries, and each has contributed to our Society. The society logo symbolizes our duty and significance: Shape of the colon/urinary stoma, Excretion of feces/ urine through it, Ostomy mucosa everted through the abdomen, Handmade with the irregular shape of the stoma, Society philosophy of Asian friendship and collaboration among nurses, surgeons, and co-medicals, Continuous cure & care (3 Cs). This is not a red crescent or Red-Cross but we will learn from humanitarian laws and keep young like a new moon.
- 4. In Singapore, 2005, the joint executive meeting of ASSR & AFCP decided to hold the Asian Forum of Stoma Rehabilitation (AFSR) during each AFCP Congress, while ASSR holds the own Congress in other year. The AFSR was held under the 11<sup>th</sup> AFCP Congress in Tokyo, but never after.
- 5. IOA published VISITOR PROGRAM TRAINING GUIDELINES<sup>3)</sup> and we use this as a textbook of Ostomy Visitor<sup>4)</sup>. The visitor is uniquely qualified to share non-medical information and to help in the psychological and social rehabilitation of the ostomate. This 30-page book was edited by IOA, WCET, ASSR and Lions for stoma care (Modena Wiligelmo). This may be translated to your national language and available through IOA or your ostomy association.
- 6. We have the education committee, which developed PROJECT of STOMA CARE TRAINING IN A COUN-TRY. The detail is available on the ASIAN OSTOMY. It is active in several countries.
- 7. Financial committee has been organized. ASIAN OSTO-MY FUNDS was proposed<sup>2)</sup> but is not active yet. The fund is originally for each nation, but we need a center fund, that will be used for mutual exchange of information and meetings. The center fund will be utilized to help poorer nation-funds, also. The local funds will be used for a national welfare-developing projects<sup>5)</sup>.
- 8. Our own journal ASIAN OSTOMY has been published as the congress proceeding, usually within three months after each Congress. Its cover page includes National Script and National color sheet of the congress country<sup>6</sup>. In the editor's preface, opinions and comments of the director-general are introduced as he felt during the congress. The contents include a congress president's report, full

- manuscripts of each presentation by symposia, posters and free papers, but never abstracts nor program which are published as a separate booklet. There was no advertisements of products and drugs as the Journal's policy.
- 9. The ASSR Congress has been held mainly in countries where ostomy association has been established but ET education is developing. Sometimes the Congress joined another congress or meeting but was presided separately by our own Congress President.

### **Discussions**

Our society would not need to expand our field to the related one; wounds and continence, such in WCET, JSSCR, etc., because we shall concentrate to ostomy-surgery, -care and -rehabilitation and to ostomates' welfare or social engineering. Our society cannot survive under a single power of surgeons or nurses, but can do under collaboration of surgeons, nurses, comedicals, etc.<sup>7)</sup>.

There are many definitions on collaboration in medical field. I would like to say "working together in a joint effort of different professionals within the scope of each professional expertise in order to serve the same purpose and to reach the goal of our patients." Someone says it is like "the wheels on two sides of a car", but it is not enough. We need a driver or leader to carry our patients to the goal. Otherwise we lose a way or drive around without a goal. Patient's goal must be individual. However, all patients must be happy with ostomy. We know how to manage their skin problems, and how to prevent parastomal hernia. But we cannot provide each ostomate free appliances, and we cannot reconstruct their own toilet. Of course, these are beyond our profession, and these are according to their own merits or depending on national welfare system.

In order to do this by our own endeavor, we will need financial support from volunteers. We need many helps to create and collect the fund; the Asian Ostomy Fund. You may know many volunteers who want to contribute to such a social normalization. We shall find the special financial group that permits their income tax reduction by their contribution.

If we hold the annual conference and promote the cooperative activities in close partnership with the associations of surgeons and nurses besides Asian & South Pacific Ostomy Association (ASPOA), we should secure the financial resources. Our political movement for ostomate welfare, for example, cannot be promoted without financial background for preparation and activities. The fund will be utilized for Asian ostomates, but not directly for the purchase of the existing ostomy-appliances. Initially, the fund will be used for investigation of ostomates welfare, for

political negotiation with the governments in each country, and for fixing our policy. Secondly, the fund will be used for developing better and economical appliances with the guarantee of a higher quality of life. And lastly, the fund will be used for the better education of ostomates and medical professionals. How to collect the funds was discussed in my previous article, but I hope our financial committee will discuss it.

We established Asian Stoma Nurse Program, Asian Stoma Funds, and Asian Joint Movement with ASPOA; Meeting and Ostomy Visitor System. These systems, however, are not successful yet. The reasons may be due to the weak relationship among country delegates, and their mother language difference or communication difficulty. Our official language is English, but many Asian people don't use it as mother language nor during daily conversation. This is one of reasons why they hesitate to present their studies and opinions in our congress and to submit their manuscripts to our journal. In Asia, however, we can understand their mind or what they think without King's English because we are eager to learn others culture and life. Let me say "Our language may be the poor English but a receptive mind in our ASSR" and "Don't hesitate to speak the broken one and mother language with gestures and drawing."

In addition to the continuity of our past actions, we can improve and progress such difficult issues through mutual tighter communication among executives by using a web transfer such as Skype or Web-meeting. And so, we work not only for promotion of the stoma science but for improvement of ostomates' QOL, which may necessitate the political or administrative movements by our persuasive medical data: Number of ostomates per population, Annual number of ostomy surgery in nation, Availability of ostomy care products, Price of the products and ostomate's income, Reimbursement costs for ostomy care, Social support with employment, tax benefit, disability pension, Social accept with category in the handicapped and support by government and workplace, Professional Care, etc.

Now we have several organizations; ASPOA, APETNA, AFSR of the Asia Pacific Federation of Coloproctology (APFCP, previously AFCP), and our ASSR. Personally, I feel they should be organized as one big project or a certain purpose in future, although there are many issues to be solved because they have the same purpose of Asian ostomates' health and welfare under each country's socio-economic diversity<sup>8</sup>). In near future, however, these organizations shall be joined for them. Otherwise we may have to furnish free or cheaper ostomy appliances to our Asian ostomates by our hands, as I concluded in my research of skin barrier standardization<sup>9</sup>).

# Conclusions

History is complicated, but the society is necessary to tighten closer communications among each country delegate by SNS or web meetings. If possible, let's union our professional societies and make professional data for ostomates' welfare.

Asian Ostomy Funds may be possible to be organized well and managed actively. The funds shall be used for communication of each other for information especially of the ostomate's welfare system.

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# A questionnaire survey on difficulties experienced in daily life by ostomates in Japan

Hitomi Kataoka<sup>1)</sup>, Yoshiko Ando, Yukie Sakai, Toshie Tsuchida, Yasumi Matsubara, Yoko Mitomi, Mitsuko Watanabe

Non-Profit Organization Stoma Image Up Project, <sup>1)</sup> Nursing division, Yamagata university Correspondence to: Hitomi Kataoka addressed to 2-2-2 Ildanishi, Yamagata-city, Yamagata Prefecture, 990-9585, Japan.

Ostomy patients often suffer from symptoms including leakage, skin irritation, parastomal hernia, fluid and electrolyte imbalance, intestinal obstruction or stoma prolapse <sup>1)</sup>. The fear of leakage caused by failure of appliances, ballooning of bags and bad odor are some of daily problems that these patients suffer <sup>2)</sup>.

### **Purpose**

The purpose of this study was to clarify the difficulties experienced in daily life by ostomates depending on the types of ostomy and postoperative time.

### **Methods**

The questionnaires, which focused on difficulties experienced in daily life, were distributed among ostomates. Fourteen distributors enclosed the questionnaires at random upon sending the ostomy appliances.

# Results

In total, 603 colostomates, 103 ileostomates and 203 urostomates participated in present survey. In terms of age, over 80% of colostomates and urostomates were over 60 years old, on the other hand, 66% of ileostomates were less than 60 years old. With regard to postoperative time, 30% of colostomates and urostomates were 1 to 3 years, whereas 23% of ileostomates were less than 6 months.

The most common difficulties experienced in stoma management were as follows: In colostomates, there was a

ballooning of ostomy bags (48%); in ileostomates, there was ballooning of ostomy bags (53%) and the price of appliances were high(53%); in urostomates, there was pouch leakage (38%). In terms of daily experiences, regardless of the types of ostomy, about 60% of ostomates were not to allowed to go to a hot spring. With regard to socioeconomic aspect, there were payments exceeding the amount of subsidies in colostomates, ileostomates and urostomates (43%, 39.8% and 49%, respectively).

With regard to postoperative time, there were some differences between ileostomates and urostomates in terms of stoma management. In terms of going to a hot spring, regardless of the types of ostomy and postoperative time, about 50% of ostomates had experienced difficulties. Furthermore, over 30% of colostomates and urostomates had payments exceeding the amount of subcidies regardless of the postoperative time elapsed.

# Conclusion

There were some unique difficulties depending on the types of ostomy and postoperative time.

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# Standardized procedure for diverting loop ileostomy after proctectomy: experiences in a high-volume cancer center in Japan

Akira Ouchi, MD<sup>1)</sup>, Koji Komori, MD, PhD<sup>1)</sup>, Takashi Kinoshita, MD, PhD<sup>1)</sup>, Taihei Oshiro, MD, PhD<sup>1)</sup>, Hitomi Kojima<sup>2)</sup>, Terumi Sasaki<sup>2)</sup>, Mayumi Agata<sup>2)</sup>

1) Department of Gastroenterological Surgery, the Aichi Cancer Center Hospital, Aichi, Japan 2) Department of Nursing, the Aichi Cancer Center Hospital, Aichi, Japan

Corresponding author: Akira Ouchi, MD addressed to 1-1 Kanokoden, Chikusa, Nagoya, Aichi, 464-8681, Japan. Phone: +81-52-762-6111; E-mail: akira.ouc@gmail.com

# **Background**

Fecal diversion has been increasingly used for proctectomy with low or very low colorectal anastomosis or coloanal anastomosis in Japan.

### Methods

After proctectomy, a circular skin incision is made, which is followed by a vertical fascial incision. The proximal and distal limbs of the ileum end are fixed to form a loop and to bring through the trephine. Next, the fascia and peritoneum are sutured to cover the muscle, and the end-loop is fixed together. After closing all wounds, eversion sutures and mucocutaneous sutures are placed.

### Results

In total, 140 patients underwent curative proctectomy with diverting loop ileostomy for rectal malignancies between 2013 and 2017 at the Aichi Cancer Center. Of these, 84 patients (59%) developed early skin irritation, for which conservative management showed efficacy in all but two patients. Median maximum output was 1,185 mL from the stoma, but only four of 41 patients with postoperative chemotherapy required re-admission for dehydration. Eventually, 130 patients (93%) underwent stand-by stoma closure, 6 (4%) underwent unexpected early stoma closure, and 4 (3%) remained with the ileostomy.

# Conclusions

Diverting loop ileostomy is safe and feasible for performing proctectomy with low or very low anastomosis.

# Introduction

The technique of fecal diversion has been increasingly used for proctectomy with low or very low colorectal anastomosis or coloanal anastomosis in Japan as an anus-preserving procedure for treating rectal malignancies. Although higher rates of skin irritation and dehydration have been reported <sup>1)</sup>, loop ileostomy is better for diverting stoma as for the blood supply to the remaining colon when high ligation of the inferior mesenteric artery is performed for complete mesocolic excision and lymph node dissection.

It is important to perform high-quality loop ileostomy and to manage the complication properly by trained medical staffs familiar with ostomy to avoid stoma-related complications. In this report, we describe the surgical procedure for diverting loop ileostomy with proctectomy at the Aichi Cancer Center (ACC) and assess the outcomes of this procedure.

# Methods

At the ACC, diverting loop ileostomy is performed for conducting proctectomy with 1) coloanal anastomosis, 2) colorectal anastomosis when the tumor is below the peritoneal reflection, and 3) a concern of anastomotic leakage in an incomplete double stapling technique. All patients undergo preoperative stoma site marking by certified Wound Ostomy Continence (WOC) nurses or ward nurses familiar with site marking.

After proctectomy, a circular skin incision of 2 cm in diameter is made on the appropriate marked site. Next, a vertical incision is made on the anterior rectus abdominis sheath, the rectus abdominis muscle is bluntly split, and a vertical incision of posterior sheath is made to act as the trephine for the ileum loop. The trephine has to be large enough to easily pass two fingers in order to reduce outlet obstruction. To avoid adhesion between the ileum loop and rectus abdominis muscles in order to allow easy stoma closure, the anterior and posterior sheaths are fixed with eight sutures. The sutures remain with the needles to fix the ileum loop to the trephine.

A nelaton catheter is placed through the mesentery at approximately 20 cm from the ileum end in order to hang the ileum loop. Proximal and distal limbs of the ileum are fixed at both sides of the mesentery with two sutures each to be looped (Figure 1A). Next, the ileum loop is brought through the trephine with at least a two-finger height from the skin level. This distance is maintained as the ileostomy should be higher in order to reduce skin irritation caused by the exposure to ileal juice. Then, the loop is fixed with the same sutures remained on the rectus abdominis sheath (Figure 1B).

After closing the wound (or all port sites on lapa-



**Figure 1.** Procedure for diverting loop ileostomy. A) Proximal and distal limbs are fixed in order to form a loop. B) The loop is fixed with the sutures remained on the rectus abdominis sheath. C) The distal limb is opened at the skin level. D) Ileostomy is completed.

roscopic surgery) with stitches and surgical glue, the distal limb is opened at the skin level (Figure 1C). Mucous fistula is fixed using three sutures to the skin, and one or two eversion sutures are placed at the other side of the mucous fistula. Finally, after placing 10–12 mucocutaneous sutures, the ileostomy is complete (Figure 1D). For suturing, 4-0 absorbable monofilament sutures were used.

All patients receive a gastrografin enema for the detection of anastomotic leakage or stricture before stoma closure. Stoma closure is generally performed 3 months

after proctectomy for patients without adjuvant chemotherapy or after the completion of chemotherapy for patients with adjuvant chemotherapy.

### Results

In total, 140 patients underwent curative proctectomy with diverting loop ileostomy for rectal malignancies at ACC between January 2013 and June 2017. Patient characteristics are reported in **Table 1**. Coloanal anastomosis was performed in 35 patients (25%) and colorectal anastomosis in 105 patients (75%). Ninety-nine patients (71%) did not receive adjuvant chemotherapy, whereas 41 patients (29%) received adjuvant chemotherapy after proctectomy (21 patients received an oral anticancer agent and 20 received an intravenous anticancer agent).

Outcomes for diverting ileostomy are reported in **Table 2**. In total, 111 patients (79%) developed stoma-related complications (Clavien-Dindo classification, all grades) during the period with an ostomy. The most frequent stoma-related complication was skin irritation that was observed in 103 patients. Almost all patients with skin irritation were controlled using conservative management under the guidance of certified WOC nurses, except for two patients who underwent early stoma closure due to skin irritation.

Median (IQR) maximum output from ostomy was

**Table 1. Patient characteristics** 

Age, years	62 (52-69)
Sex, male : female	101 : 39
Procedure, n (%)	
coloanal	35 (25%)
colorectal	105 (75%)
Adjuvant chemotherapy, n (%)	
absent	99 (71%)
present	41 (29%)
├ oral	<b>├</b> 21
<sup>∟</sup> intravenous	└ 20

values are median (IQR)

Table 2. Outcomes for diverting ileostomy

Stoma-related complications*, n (%)	
absent	29 (21%)
present**	111 (79%)
⊢ skin irritation	⊢ 103
- mucocutaneous detachment	<b>⊢</b> 18
- dehydration	<b>⊢</b> 6
└ other	<b>└</b> 4
Maximum output, ml	1,185 (780 - 1850)
> 2,000ml, n (%)	27 (19%)
Readmission, n (%)	
⊢ dehydration	<b>⊢</b> 4
└ skin irritation	<sup>∟</sup> 1
Severe stoma-related complications***	10 (7%)

\*Clavien-Dindo all grade

<sup>\*\*\*</sup>Some patients experienced more than one event \*\*\*Required re-admission, early stoma closure or interrupted chemotherapy values are median (IQR)

1,185 (780–1,850) mL, and 27 patients (19%) had high stoma output (>2,000 mL) during their hospital stay. All 99 patients who did not receive postoperative chemotherapy did not require re-admission for stoma-related complications associated with ostomy. Four of 41 patients who received postoperative chemotherapy required re-admission for dehydration during chemotherapy and two patients underwent early stoma closure due to dehydration. Almost all patients underwent an uninterrupted chemotherapy without dehydration or other stoma-related complications, except for one patient who developed with severe skin irritation and underwent early stoma closure. Only 10 patients (7%) developed severe stoma-related complications, required re-admission, early stoma closure or interrupted chemotherapy, resulting interrupted planned postoperative course.

Outcomes for stoma closure are reported in **Table 3**. Eventually, 130 patients (93%) underwent stand-by stoma closure, and six patients (6%) developed complications after stoma closure. The most frequent complication was ileus for five patients (4%). Six patients (4%) underwent unexpected early stoma closure and only four patients (3%) remained with the ileostomy. Only 10 patients (7%) developed complication after stoma closure. The most frequent complication was ileus that was observed in seven patients, and only two patients developed superficial SSI.

# **Discussion**

Although the rates of skin irritation and high stoma output were high, only 7% of patients developed severe stoma-related complications resulting interrupted planned postoperative course. Almost all patients safely received

Table 3. Outcomes for stoma closure

Stoma closure, n (%)		
stand-by	130 (93%)	
early	6 (4%)	
skin irritation	-2	
- dehydration	-2	
└ other	<b>└</b> 2	
not done	4 (3%)	
Complications*, n (%)	10/136 (7%)	
⊢ileus	<b>⊢</b> 7	
superficial SSI	<b>⊢</b> 2	
└ pneumoniae	<sup>∟</sup> 1	

\*Clavien-Dindo all grade

postoperative chemotherapy and underwent stand-by stoma closure at ACC. This suggests that fecal diversion with loop ileostomy is associated with a high rate of stoma-related complication; however, such complications can be safely managed without interrupting postoperative chemotherapy by cooperating with other medical professionals.

Several studies have reported the benefit of fecal diversion for preventing severe anastomotic leakage <sup>2) 3)</sup>, and the technique of diverting stoma has been increasingly used for proctectomy. Unfortunately, these complications are frequently neglected or completely disregarded because stoma-related complications, including skin irritation and high output stoma, are not severe or life-threatening. However, it is important to be mindful of the patients' quality of life (QOL) during the period with ostomy; stoma-related complications often result in a decreased QOL, obstructing patient lives. Furthermore, stoma-related complications occasionally interrupt the postoperative treatment for malignancy, including adjuvant chemotherapy.

Considering that it is important to perform high-quality loop ileostomy, completely eradicating stoma-related complications is impossible regardless of the extensive efforts made in this direction. Thus, stoma-related complications should be managed by ensuring cooperation among trained medical staffs, and we can overcome severe complication as the present report has shown.

# Conclusions

Diverting loop ileostomy is safe and feasible for proctectomy with low or very low anastomosis when performed using a standardized procedure at a high-volume cancer center and managed with the cooperation of trained medical staffs.

# **Acknowledgements**

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# Standardization of laparoscopic stoma closure after Hartmann's operation

Daisuke Yamamoto, Hiroshi Saito, Shoko Hara, Ikumi Murata

Department of gastroenterological surgery, Ishikawa prefectural central hospital

Postal address: Kuratsuki-higashi 2-1, Kanazawa, Ishikawa, Japan. Email address: yamamoto.daisuke@gmail.com

# Introduction

Hartmann's operation, which was first described by Henri Hartmann in 1921<sup>a)</sup>, is currently a frequently performed operation for complicated diverticulitis and obstructive or perforated colon cancers. But, colostomy closure after Hartmann's procedure carries a low mortality but a high morbidity of 15 to 34 percent<sup>b)</sup>.

Our experience with laparoscopic colorectal surgery demonstrated these patients to have less pain, a shorter hospital stays. This led us to apply laparoscopic techniques to colostomy closure after Hartmann's procedure to decrease the hospital stay in this select group of patients.

We started laparoscopic Hartmann's reversal from 2013 and standardized it.

The aim of this study is to evaluate the results of a single-department experience with laparoscopically assisted reversal of Hartmann's procedure and to address the technical tips and potential advantages associated with this procedure.

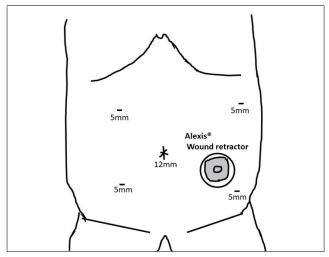
# Method

This is a retrospective, single-center study. We herein present 9 cases in which laparoscopic Hartmann's reversal was performed at the Department of gastroenterological surgery, Ishikawa prefectural central hospital, Japan. These 9 patients underwent conventional Hartmann Procedure between 2013 and 2017 for acute complicated diverticulitis or cancer. Other indications for HPs were excluded. Of the 9 patients who underwent LHR, 5 were men and 4 were women. In the preoperative assessment, patients underwent an anatomical evaluation (i.e. barium enema, CT, or endoscopy) of the remaining proximal colon and rectal stump. Patients underwent bowel preparation (including enemata to empty the rectal stump) approximately 24 h before surgery.

# **Surgical Procedure**

In consideration of adhesion, operation is carried out at an interval of 6 months from the initial surgery. The patients are placed in a modified lithotomy position with the legs only slightly flexed. Two video monitors are placed on the left side of the patient.

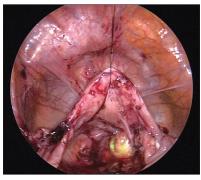
First, cut the around the stoma and closed, after that



**Figure 1.** Shema of trocar placement. First, cut the around the stoma and closed, after that insert an Alexis® Wound retractor, pneumoperitoneally gloved. If there is adhesion with the abdominal wall, laparoscopic dissection is performed, and this procedure is done with 5 ports.

insert Alexis® Wound retractor, pneumoperitoneally gloved. If there is adhesion with the abdominal wall, laparoscopic dissection is performed, and this procedure is done with 5 ports (Fig.1). Peel off the adhesion of the small intestine in the pelvis and mobilize the rectum and sigmoid colon to ensure a tension-free colorectal anastomosis.

If the rectal stump is difficult to understand, intraoperative endoscope is very useful (Fig.2). Gambee anastomosis or instrument anastomosis is performed at the length of the residual colon. After instrument anastomosis, the donuts were checked, a leak test was performed by filling the pelvis with saline and insufflating the rectum with air by



**Figure 2.** Intraoperative endoscope is very useful for detection the rectal stump

endoscopy.

Wash-out was performed and hemostasis confirmed. A 24-Fr drain was placed in the pelvis. Pneumoperitoneum was released and the trocars removed. Previous Stoma site was performed Purse-string suture technique for preventing surgical site infection

### Results

From January 2013 to December 2017, nine patients who closed the ostomy under laparoscopic surgery after Hartmann's procedure were examined retrospectively. One case was laparotomized due to adhesion. The median age was 70 years(range,54-82years), the median surgical time was 265 minutes (range,160-435 minutes) and the median bleeding was 100 ml(rabge,10-700ml). Three cases performed Gambee anastomosis, and six cases performed instrument anastomosis. The median postoperative hospital stay was 11 days(range,8-14days), and the postoperative complication was a case of ileus. (Table1)

### **Discussion**

Hartmann's procedure has an established role in the management of complicated diverticular disease, especially in those patients with perforation causing fecal peritonitis. In our cases most patients with diverticular disease had a perforation. These patients are waste away, because of the previous surgery and peritonitis and intensive care. For Hartmann reversal, it is very important to restore nutrition, to improve physical stamina, to allow adhesions to become as soft as possible, to review all records.

Significant operative difficulty and morbidity have been reported for Hartmann's reversal because of severe adhesion and complicated previous surgery <sup>c)</sup>. In addition, most patients with a colostomy after Hartmann procedure are too old and are considered ASA III or higher. Therefore, a large group of patients is left with a permanent stoma mainly be-

cause reversal is considered risky due to their fragile state of health.

During recent years, the laparoscopic Hartmann's reversal appears to be safe and feasible in many patients, although it is generally considered as a challenging procedure. Varerio reported a systematic review of Laparoscopic versus Open Hartmann's reversal, they conclude Laparoscopic Hartmann's reversal has less short-term complications than Open Hartmann's reversal while no significant difference exists in the operating time.

Our cases are very good result about less pain, less post-operative complications, less hospital stay. An interval of 6months was chosen as an arbitrary division for postoperative adhesion. Our results suggest that adhesion was mild, and 88.8% patients were performed laparoscopic Hartmann's reversal.

# **Conclusions**

Laparoscopic stoma closure after Hartmann's operation can be performed safely, and there was no major complication during and after surgery, and it seemed possible to minimally invasively by standardizing the procedure.

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Table 1. Details of laparoscopic Hartmann reversal our institution

Case	Previous Surgery	Sex	Age	Bleeding (ml)	Time (min)	Post Op. Hospital stay (days)	anastomosis	Complication	Conversion to laparotomy
1	Our	М	54	100	285	11	EEA28	No	
2	Other	М	45	300	435	10	EEA28	No	
3	Our	F	72	700	330	13	EEA28	No	Due to Adhesion
4	Our	F	61	100	340	13	EEA28	lleus	
5	Our	F	70	100	265	14	EEA28	No	
6	Our	М	51	20	180	8	Gambee	No	
7	Our	F	82	10	160	11	CDH25	No	
8	Our	М	74	40	170	9	Gambee	No	
9	Other	М	75	130	210	9	Gambee	No	
Median			70	100	285	11			

# Clinical experience of negative pressure wound therapy using portable device for the wound management in stoma closure

Hiroshi Saito, Daisuke Yamamoto

Department of gastroenterological surgery, Ishikawa prefectural central hospital

Postal address: Kuratsuki-higashi 2-1, Kanazawa, Ishikawa, Japan. Email address: hsaito0413@gmail.com

# Introduction

Negative-pressure wound therapy (NPWT) is widely used for the wound management and is useful for treating wound infection, dehiscence, or wounds exhibiting delayed healing because it promotes tissue granulation <sup>a)b)</sup>. NPWT is also used for open abdominal wounds in damage-control surgery <sup>c)</sup>. Recent advances in the design of the NPWT devices have resulted in devices that are more lightweight and easier to use, making them convenient for outpatient use.

Diverting ileostomies are commonly performed as a standard procedure in several colorectal operations to prevent anastomotic leakage. The closure of an ileostomy is classified as a class 3 wound, with a high risk of infection <sup>d)</sup>. Some reports have advocated the efficacy of the purse-string suture (PSS) technique for preventing surgical site infection (SSI)<sup>e)f)</sup>. However, delayed wound healing may cause wound infection after the closure of an ostomy. Several studies have demonstrated the usefulness of NPWT for the wound management in stoma closure. The aim of this study is to evaluate the prophylactic usefulness of a NPWT device for stoma closure.

# Method

Our study population included 39 patients who underwent stoma closure at our institution from January 2017 to July 2018. NPWT was applied to 19 patients along with PSS. The remaining patients underwent PSS only. At ostomy closure, a circumference incision around the ostomy was performed, and then the adhesion between the ostomy and abdominal wall was detached. After the detachment, we mobilized the small intestine and performed a partial resection of the small intestine, including the ostomy. The reconstruction was a functional end-to-end anastomosis with a linear stapler. Wound closure was performed along two layers, including the rectus fascia and subcutaneous layer. Subcutaneous suture was performed using the PSS method with 3-0 absorbable mono-filament material (Monocryl®, Ethicon).

A NPWT device was attached just after surgery. We used a PICO device (Smith and Nephew Healthcare), which is lightweight and portable. In patients without NPWT, the wound dressing was gauze only. We examined some clinical

factors retrospectively.

# Results

We enrolled 39 patients in this study. The patients' backgrounds before stoma closure are presented in **Table 1**. We treated 19 patients with PSS+NPWT, and 20 patients were treated with PSS alone. No significant differences were observed in patient characteristics. Surgical backgrounds are indicated in **Table 2**. The operation time was similar in both groups. The postoperative course is shown in **Table 3**. There were no cases of incisional SSI in either group. Ileus was observed in 3 of 19 (16%) patients with PSS+NPWT and in 1 of 20 (5%) patients with PSS alone. The length of postoperative hospital stay was shorter in the PSS+NPWT group than the PSS alone group. Time from stoma construction to closure were similar in both groups. The length of epithelization tended to be shorter in the PSS+NPWT group than the PSS alone group.

Table 1. Patients backgrounds

	PSS+NPWT (n=19)	PSS alone (n=20)	P-value
Gender, male:female	10:9	17:3	< 0.05
Age at surgery, years	67 (50-75)	69.5 (40-84)	0.25
Cause of stoma construction			0.56
Diverting	15	14	
Anastomotic leakage	3	2	
Perforated peritonitis	1	4	
lleostomy or colostomy			0.34
lleostomy	18	16	
Colostomy	1	4	
ASA-PS, 1/2/3/4/5/6	1/13/2/0/0/0	1/18/1/0/0/0	0.31

<sup>\*</sup>ASA-PS: American society of anesthesiologist-physical status

Table 2. surgical background

g			
	PSS+NPWT (n=19)	PSS alone (n=20)	P-value
Operation time, minutes	86 (53-150)	87.5 (60-210)	0.49
Amount of blood loss, ml	5 (2-25)	20 (5-130)	< 0.05
Wound closure	All PSS	All PSS	-

Table 3. Postoperative course

	PSS+NPWT (n=19)	PSS alone (n=20)	P-value
Complications			0.34
Incisional SSI	0	0	
ileus	3	1	
Time from stoma construction to closure, days	184 (105-527)	176.5 (106-376)	0.59
Length of treating with NPWT, days	8 (6-11)	-	-
Postoperative hospital stay, days	8 (7-30)	9 (7-11)	0.07
Length to epithelialization, days	35.5 (24-84)	43 (23-67)	-

### **Discussion**

The efficiency of NPWT for delayed wound healing has been reported in some trials <sup>a)b)</sup>. However, few studies for prophylactic NPWT use in digestive surgery have been reported <sup>b)</sup>. We aimed to use prophylactic NPWT for contaminated wounds created during stoma closure. We used PICO as the NPWT device, which was small, lightweight, and easy to use.

In this study, postoperative incisional SSI was not observed in either the PSS+NPWT or the PSS only groups. Furthermore, no serious complications were observed with NPWT. The postoperative hospital stay was shorter in the PSS+NPWT group than the PSS only group. Although the data was not entirely accurate, the time to epithelialization was shorter with NPWT than without.

There were several limitations to this study. First, this was a single institution retrospective study. Second, we did not evaluate the cost-effectiveness and cosmetic efficacy of the device, and these factors should be clarified in future studies. Third, although stoma closure wounds are classified as class 3 wound, the closure of an ileostomy has a lower SSI risk than the closure of a colostomy. In this study, there were more cases of ileostomies than colostomies. Because there were no incidents of SSI, the prophylactic efficacy could not be proven.

# **Conclusions**

We investigated the use of a portable NPWT device for wound management in stoma closure. No SSIs or serious complications were reported. In addition, wound epithelization tended to occur earlier with NPWT than without. Future evaluations of prophylactic NPWT should include operations that have a higher risk of SSI.

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# SUCCESSFUL REINFUSION OF DIGESTIVE FLUID

# (Discussion on 7 cases with inhibition of upper gastrointestinal secretions by reinfusion of succus entericus into the distal bowel)

RN Nguyen Thi Kim Phuong, et al: ET.Nurse Nguyen Thi Thuong, ET.Nurse Nguyen Thi Lam

Dr. Hoang Danh Tan, Dr. Nguyen Huu Thinh - University Medical Center - Vietnam

Reporter: Nguyen Thi Kim Phuong Email: phuong.ntk@umc.edu.vn phone: 0918193014

# Introduction

In some cases, patients have undergone double barrel stoma construction because of disease situation, replacement of fluid and electrolyte via venous line is usually insufficiency, therefore, we need to do digestive fluid reinfusion. However, this method is rarely used due to the difficulties of fluid collecting. Thanks to the support from modern stoma care equipment, we had done seven digestive fluid reinfusion cases on the patients had postoperative short bowel syndrome with complex commorbids and there are six cases successfully.

From 2014 to 2018 we had done 7 cases

### Patients' characteristics:

- All are emergency operating cases

- 4 cases were operated in UMC, 3 cases in other hospitals

- Stoma types:

6 cases: double barrel stoma1 case: loop ileostomy

- Diagnosis: 3 cases: Mesenteric embolism

2 cases: Lymphoma

2 cases: adhesive bowel obstruction

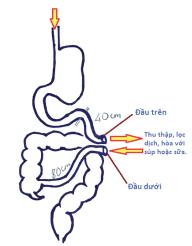
### Discussion

Discuss on three main contents:

- · Indication.
- · Procedure.
- Result

# 1/ Indication:

Digestive fluid reinfusion is collecting digestive fluid from functional stoma and reinfuse into non-func-



tioning stoma in short bowel syndrome patient.

# a. Identify the remaining small intestine length post-operation:

Proximal bowel from Treitz to functional opening is short that mean lost a huge amount of digestive fluid, patient need to take the reinfusion. In seven cases, the shortest remaining is 20cm and longest is 120cm.

Small remaining intestine from non-functioning opening to ileo-cecal valve is as long as effective nutrition absorption and patient need to take reinfusion.

# b. Examine the distal bowel continuity

Before taking the procedure we need to confirm the distal bowel continuity completely base on surgical protocol, colon endoscopy, colon X-ray.

4 cases in UMC were taking digestive fluid reinfusion at day 2-3 post-operation.

3 cases in others: 1 case kept doing procedure, 2 cases need to take laboratory investigation before reinfusion.

# 2/ Procedure:

Process includes 3 steps:

▶ Step 1: Collecting digestive fluid.

► Step 2: Prepare fluid

▶ Step 3: Reinfusing

# Step 1: Collecting digestive fluid.

Preparation:

- Two piece pouching system.
- Dressing pack
- Normal saline
- Disposable gloves
- Foley 18Fr
- KY (water soluble lubricant)
- Feeding bag
- Kidney dish
- Gauze
- Milk, soup



# Pouching:

- Clean peristomal skin, dry
- Cut wafer
- Apply wafer
- Attach bag on wafer



At the beginning, peristomal is healthy, bag adhesion well. A long the time, peristomal skin become excoriation due to effect of digestive fluid. Therefore, we need to use aid products such as stoma powder ADAPT, wafer and paste... protect skin and prolong wearing time. (Fig.1)



Figure 1. Pouching

# Collecting fluid: (Fig.2)

Every four hours, collected fluid amount around 500ml

# Step 2: Filter fluid and prepare for reinfusion

- Filter: use gauze filter collected fluid
- Preparation: mix digestive fluid (around 450-500ml/4 hours) with soup or milk in order to enhance supplied

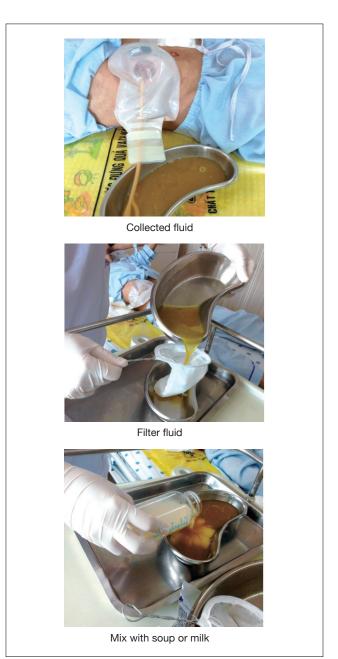


Figure 2. Collecting fluid

nutrition.

FIn this step we need to be patient, careful, patient and family association.

# **Step 3: Reinfusion**

During operating, surgeon may already put Pezzer tube into non-functioning stoma for reinfusion afterward. If not we need to insert Foley tube. (Fig.3)

- Identify the proximal and distal stoma base on the output-proximal opening is function and distal opening is non-functioning. Specially, we must use finger to identify the stoma direction before tube introducing.
- Lubricate tube
- Insert tube into distal stoma gently, avoid damage bowel



Insert Foley tube into distal opening



Pour fluid into feeding bag



Connect feeding bag with Foley tube

Figure 3. Drainage by Foley tube

mucosa.

- Pour fluid into feeding bag, connect with Foley tube and infuse (Fig.4)

# Note:

- Hand hygiene and clean equipment to prevent bowel infection.
- Correcting the fluid infusion rate, it is likely irritated bowel if too fast. On the other hand, if the remaining small intestine too short the need to slow the infusion rate to effect nutrition absorption.
- Choose the suitable milk follow nutritionist recommendation.
- Protect peristomal skin from digestive juices, keep skin



Pezzer tube was fixed on skin



Foley tube attach with stoma bag

Figure 4. Fixation of Foley tube and bag

intact and healthy.

 Avoid the risk of Foley tube moving into bowel lumen due to peristalsis (eventhough with inflated balloon), we use clamp fix the tube with stoma bag. In another hospital, they pull the tube through a hole on the bag, it looks safer but fluid is easier leakage, patient tends to be bed pound.

# 3/ Evaluation:

Patient monitoring:

- Monitor BMI, output characteristics, income and outcome balance.
- Laboratory: electrolyte, albumin, kidney and liver function.

Promote digestive fluid reinfusion, combine with oral nutritional supplements, parenteral nutrition and associate with other specialties.

Six in seven patients improved BMI and taken restoration bowel continuity surgery. One case could not take reversal surgery due to advanced lymphoma

Specially, four in seven cases can do reinfusion at home after being counselled

After restoration surgery, patients can eat food. At the first time, stool is liquid but become normal afterward.

- Weight average increased 6,4kg
- Serum albumin, blood sodium, potassium, weight and BMI were in normal range.
- During process patients' situation were evaluated by



Patient after discharged

nutritionist periodically.

- One case had Candidemia, continuous fever, we need more time for candidiasis treatment.
- With patients had bowel necrosis, mesenteric embolism.
   During intervention we also associated with haematologist, cardiologist for using anticoagulant medicines.

### **Discussion**

Small intestine has a viral function in nutritional, water, electrolytes and supplements absorption, this juice include a lot of digestive enzyme such as stomach, duodenum, bile, pancreas, small intestine juices... Physiologically, fluid amount move through small intestine is around 7-8 litters per day. In case, stoma too near Treitz, patients lost water and electrolytes severely. There is no optimal outcome if the compensation is only parenteral nutrition. Therefore, the

digestive fluid reinfusion is necessary. However, collecting fluid, filter, preparation and reinfuse are not a simple task. We need suitable appliances, patient and nurse and family collaboration.



Previously, there is rarely stoma product so that we use handmade appliances for digestive fluid reinfusion. As we known, skin will become damage when exposing with digestive juices, patients suffer and severe uncomfortable.

Nowadays, thanks to aid stoma products, we can collect all most all fluid. Firstly, we apply barrier ring around stoma and then wafer and bag.



Two piece pouching system and barrier ring





Stoma powder

Stoma paste

Compare the reinfusion between two stages. Obviously, modern stoma products contribute a huge role in collecting all fluid, balanced income and out-come, protect skin around stoma and adequate nutrition. Reduce length of hospital stay and treatment cost, it is also decrease the risk of complications (Pneumonia, UTI, Acute kidney failure), patients early get a normal life.

Digestive fluid reinfusion is a clean procedure, when processing we are afraid of diarrhoea or bowel infection. However, all cases did not get those complications.

# Conclusion

Digestive fluid reinfusion is a feasible method with short bowel syndrome patient, reduce financial burden, length of hospital stay, complications of prolonged immobilization and bed pound. However, we need adequate appliances, patient, nurse dexterity. Specially, the most important is the Surgeon, ET Nurses, family and social work group collaboration.

### References

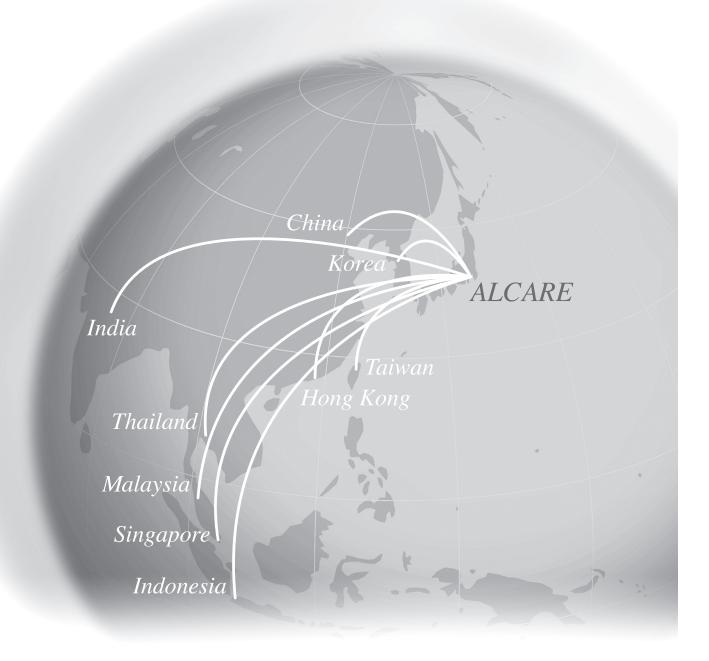
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# Asia in Mind

In the area of stoma care, ALCARE offers a high quality range of products based on original technology and delivered under its own trusted brand.

The company's internal slogan is "Asia in Mind", which refers to our commitment to provide ostomates with the highest possible QOL. With this aim in mind, ALCARE manufactures distinctive products for Asian countries.





Welcome Message

# Welcome Message

# from President of the 11<sup>th</sup> Congress of the Asian Society of Stoma Rehabilitation

Dear Colleagues,

On behalf of the Organizing Committee, it is a great honor to invite you to participate in the 11<sup>th</sup> Asian Socitey of Stoma Rehabilitation (ASSR) which will be held in conjunction with the 36<sup>th</sup> Annual Meeting of the Japanese Society of Stoma and Continence Rehabilitation on 22<sup>nd</sup> to 23<sup>rd</sup> of February, 2019.

The main theme of the 36<sup>th</sup> annual meeting is "studying the past to learn new things." In the field of stoma, as there has thus far been little evidence to support our research findings, we have had to develop knowledge and technologies based on so-called "tradition," or what has been handed down from the past. Therefore, by setting "studying the past to learn new things" as this year's theme, we are now going to reestablish old traditions from which we will gain new knowledge. So, at the conferences, I would urge all participants to actively present their old traditions alongside the new knowledge and findings.

Osaka has various sightseeing spots - Osaka Castle, Tsutenkaku Tower, Dotonbori Area, Universal Studios Japan and Osaka Aquarium Kaiyukan. It also has a rich and varied food culture called "kuidaore," literally meaning to eat oneself to bankruptcy. In addition to the conference, I hope that all participants will thoroughly enjoy the abundant entertainment that Osaka has to offer.

We, the conference staff, will make every effort to ensure that the meetings are academically fulfilling and satisfying to all participants. I hope that as many people as possible will participate in the meetings.

Welcome all of you to Osaka.



Greeting from Professor Yukio Nishiguchi, M.D., President of the 11<sup>th</sup> Congress of the Asian Society of Stoma Rehabilitation

# Welcome Message

# from Director General of Asian Society of Stoma Rehabilitation

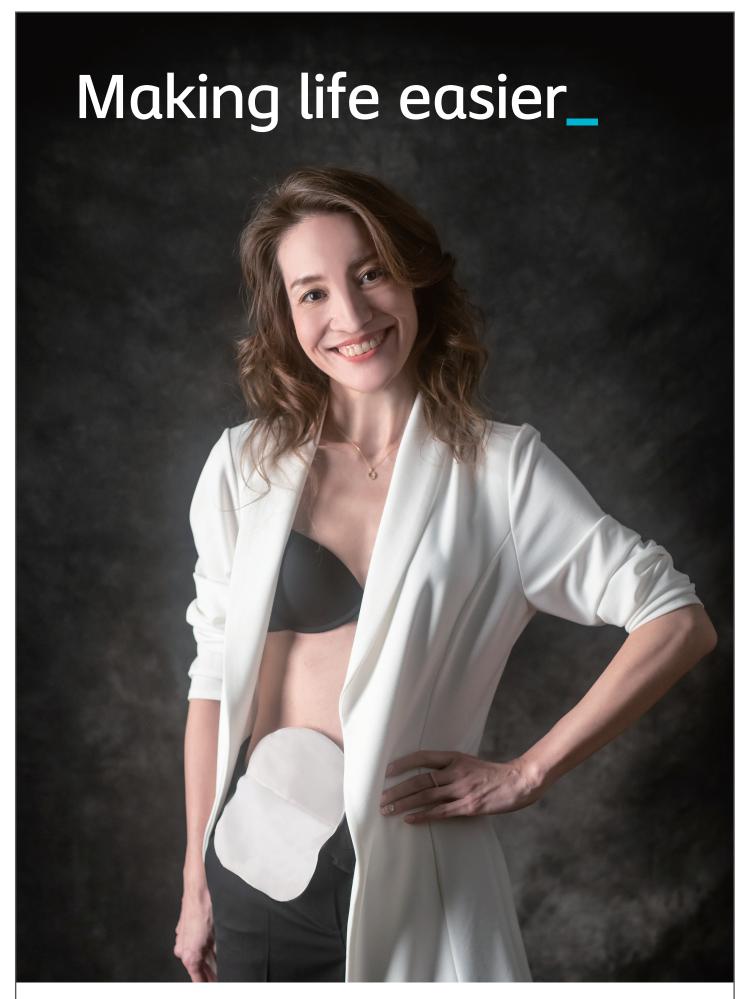
I would like to express our warm welcome to all the delegates for attending 11<sup>th</sup> Congress of Asian Society of Stoma Rehabilitation (ASSR) held in Osaka, Japan. ASSR is consisted of 18 Asian country's stoma societies and has been established to develop stoma rehabilitation in Asia. Eleventh ASSR Congress is held in conjunction with 36<sup>th</sup> Annual Congress of Japanese Society of Stoma and Continence Rehabilitation (JSSCR) this time. We are very pleased to accept more than 50 papers from Asian coutries except Japanese presentation.

Congress President of JSSCR and ASSR Prof. Yukio Nishiguchi and his team have done a lot of effort to welcome you and to make a great success of the Congress. During the Congress you might enjoy USJ at Festival party. I understand that ASSR Congress is very much meaning not only to contribute your academic research and education but also to tighten the friendship between Asian nurses and doctors who are engaged in stoma through the Congress.

Osaka has a lot of interesting spots in eating and sightseeing. There is a Japanese word "Kuidaore" in Osaka, which means "eat and fall down". In other words, people in Osaka so love to eat at reasonable price. Therefore you can find a nice food at a reasonable price in Osaka. In addition you can reach Kyoto within one hour train ride. I do hope that all the delegates enjoy the discussion of the Congress and stay in Osaka, Japan. Welcome to Osaka, Japan

Greeting from Director General Kotaro Maeda, MD, PhD.,
Director General of ASSR, Executive Director and Professor
International Medical Center Fujita Health University Hospital









# Program

# Main Venue: Special Conference Room

		February 22 (Friday)
9:50~11:	10	p327
-	nposium 1	Chairs: Ho-Kyung Chun (Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine) Kotaro Maeda (International Medical Center Fujita Health University Hospital)
S1-1	Lesson from The Past of A Katsuhisa Shindo (Kindai U	SSR Iniversity, PL General Hospital)
S1-2		nate from my personal experience as a patient with a stoma sharatiya Arogya Nidhi Hospital)
S1-3		s : Role of family, society and the employer Thi Postgraduate Institute of Medical Sciences)
S1-4	Surgical complications of Nihar Ranjan Dash (All Ind	intestinal stoma ia Institute of Medical Sciences)
11:25~1	3:05	p329
Mini Syn	nposium 2	Chairs: Harikesh Gulabrai Buch (Bharatiya Arogya Nidhi Hospital) Katsuhisa Shindo (Kindai University, PL General Hospital)
S2-1	Recent trend in the treatm	nent of rectal cancer
	110-17 yulig Chull (Kaligbuk :	Samsung Hospital, Sungkyunkwan University School of Medicine)
S2-2	High output stoma: Implic	
S2-2 S2-3	High output stoma: Implic Hyeong-Rok Kim (Chonnan Pearls for Practice : Using	ation and Management
	High output stoma: Implic Hyeong-Rok Kim (Chonnan Pearls for Practice: Using Yun Jin Lee (Yonsei Univers Spontaneously-closure ca	ation and Management  n National University Hwasun Hospital and Medical School)  Convexity in Ostomy Care

# | Main Venue : Special Conference Room

		February 23 (Saturday)
9:00~10	0:20	p33.
Mini Sy	mposium 3	Chairs: Tzu-Chi Hsu (Mackay Memorial Hospital, Mackay Medical College, Taipei Medical University) Yu Okazawa (Juntendo Faculty of University)
S3-1	Covering ileostomy or co William Chia Shing Meng	lostomy? The argument continues. (Drs Anderson & Partners)
S3-2	•	n difficulties experienced in daily life by ostomates in Japan t Organization Stoma Image Up Project)
S3-3	Standardized procedure f Japan Akira Ouchi (Aichi Cancer	for diverting loop ileostomy at a high-volume cancer center in Center Hospital)
S3-4	. ,	na in surgery for rectal cancer University School of Medicine)
10:20~	11:40	p33 <sub>4</sub>
Mini Sy	mposium 4	Chairs: William Chia Shing Meng (Drs. Anderson & Partners) Akira Ouchi (Aichi Cancer Center Hospital)
S4-1	without an abdominal inc	feasible under local anesthesia, and may guide to APR cision orial Hospital, Mackay Medical College, Taipei Medical University)
S4-2	Skin-approximating closur wound therapy for stoma Yu Okazawa (Juntendo Fa	
S4-3	Method for preventing wo Kohei Fukuoka (Nara med	ound infection in the closure of ileostomy
S4-4	Standardization of laparo	scopic stoma closure after Hartmann's operation

Daisuke Yamamoto (Ishikawa Prefectural Central Hospital)

# Main Venue: Special Conference Room

13:00~13:52 p339

Free Paper 1 Chairs: Ashok Kumar (Sanjay Gandhi Postgraduate

Institute of Medical Sciences)

Daisuke Yamamoto (Ishikawa Prefectural Central
Hospital)

O1-1 Implementing the 20/40 Focus Group of the ASPOA intended for young adult ostomates: assuring the continuity of stoma associations

Ronaldo Saguiguit Lora (Asia and South Pacific Ostomy Association)

O1-2 Clinical experience of negative pressure wound therapy using portable device for the wound management in stoma closure

Hiroshi Saito (Ishikawa prefectural central hospital)

O1-3 EVALUATION OF NURSE KNOWLEDGE IN STOMA CARE AFTER STRUCTURED TRAINING

Muh Adan Kurniawan (Hasanuddin University)

O1-4 A case study of gaps in knowledge and attiudes regarding colostomy care in Sri Lanka Maggonage Upul Pathmasena (National Hospital Of Sri Lanka)

13:55~15:00 p341

Free Paper 2 Chairs: Ho-Kyung Chun (Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine)

Yun Jin Lee (Yonsei University Health System)

O2-1 Quality of life in Japanese patients with urostomy

Tomoki Yamamoto (Osaka City General Hospital)

O2-2 First Application of Ultrasound to Examine Bowel Movement in Stoma Patients (Hong Kong)

Chi Wai HO (Pamela Youde Nethersole Eastern Hospital)

O2-3 DISCUSSION ON 7 CASES WITH INHIBITION OF UPPER GASTROINTESTINAL SECRETIONS BY REINFUSION OF SUCCUS ENTERICUS INTO THE DISTAL BOWEL

Nguyen Thi Kim Phuong (Former Head Nurse of Gastrointestinal surgery Department and Stoma Nurse)

O2-4 Robotic equipment in upper limb amputations

Omar FADILI (University Hassan 2)

O2-5 Effectiveness of chronic constipation care based on the observation of feces in descending colon and rectum using ultrasound images for a community dwelling old adult: Case report

Mikako Yoshida (The University of Tokyo)

# Poster: Foyer

11.40~15.00	μ34
11:40~13:00	p34

February 23 (Saturday)

P-1 Malignant tumors and varicose veins around the ostomy

Kyoungmin Kwon (Samsung Medical Center)

- P-2 Management of enterocutaneous fistula: A Case study Minkyung Kim (Samsung Medical Center)
- P-3 Effects of Social Support and Self-efficacy on Psychosocial Adjustment of Patients with ostomy using survival analysis in KOREA

  Heui Yeoung Kim (Dong-A University Hospital)
- P-4 Using Skin Bundles Care to Reduce the Pressure Ulcers Rate in Respiratory Care Center CHEN Chun-Ling (Changhua Christian Hospital)
- P-5 Strategy for preventing and Managing Percutaneous Transhepatic Cholangio Drainage (PTCD) tube Related Complications

  SHUCHEN HUANG (E-DA Hospital)
- P-6 Postoperative care for a patient with ileostomy due to laparoscopy-assisted vaginal hysterectomy and intestinal obstruction

Wu Tzu-Ling (National Taipei University of Nursing and Health Sciences, National Taiwan University Hospital)

P-7 Nursing experience in a breast cancer end stage case with fungating wounds with life quality

Ling-syuan Wei (Sijhih Cathay General Hospital, Taipei Medical University)

P-8 Nursing experience of a patient applied a movable base as wound treatment with peristomal abscess

Feng-Hsiang chou (Taiwan Taipei Veterans General Hospital)

P-9 A case study of Medical Shared Decision Making in patients with stoma: Appliance Selection and Replacement

Kai ling Su (Tainan Municipal Hospital)

P-10 Randomized comparative clinical trial of purse-string approximation and primary closure with a drain for stoma reversal surgery

Kunihiko Amano (Saitama Medical University)

P-11 Nursing Experience of Using Convex Barrier during Early Stage of Ostomy Surgery of the Bowel for Bowel Obstruction

WEN CHU YA (Taipei Tzu Chi Hospital)

P-12 Results of temporary loop type ileum ostomy in our hospital

Takahiro Wada (Tokyo Medical University)

P-13 The Experience of Caring for a Colostomy Patient with Retracted Stoma and Highoutput Excretion

Tzuyi Tsai (Cheng Hsin General Hospital)

P-14 Review The Experience Of Enterostomy Type Care Sharing In Taiwan CMUH SHU-JUNG WONG (China Medical University Hospital)

P-15	A case of delayed healing of ulcers adjacent to a stoma during anticancer drug
	treatment including Bevacizumab

Kaori Inba (Toyama Red Cross Hospital)

# P-16 Comparative outcomes between palliative ileostomy and colostomy in patients with malignant large bowel obstruction

Yasuo Nagashima (Toho University Omori Medical Center)

# P-17 Experience in management of two proximal transverse colostomy with deep and wide mucocutaneous separation

PEI-JUNG CHI (Chang-Hua Christian Hospital)

# P-18 CANCELLED

# P-19 A 63-year-old immunocompromised male with incontinence associated dermatitis complicated with secondary herpes virus infection care experience

Yu-Chang Lin (Sijhih Cathy General Hospital)

# P-20 Evaluating certificated wound ostomy continence nurses education activities in the southern Osaka region

Chie Furukawa (Sanyo Gakuen University)

# P-21 A Qualitative study on the Decision-making process for Wound Ostomy and Continence Nurses in relation to stoma outpatients

Yoshie Takaki (Fukuseikai Hospital)

# P-22 Use of Care Bundles to Improve Moisture-Associated Skin Damage in Skin Folds in Critically Ill Patients

Chia-Chi Fan (Sijhih Cathay General Hospital, Master student, Dept. of Nursing, College of Medicine, Fu-Jen Catholic University)

# P-23 Care of moisture-associated skin damage in the tracheostomy area

Mei-Yan Peng (Sijhih Cathay General Hospital)

# P-24 The effectiveness of antibacterial silver dressings for ulcers around the stoma

Yu Chih Tseng (Ditmanson Medical Foundation Chia-Yi Christian Hospital)

# P-25 Differences in the stoma care provided and the awareness and level of understanding of stoma care among care service facilities and offices

Takashi Shigeno (University of Toyama)

# P-26 A case of colostomy which was performed in left lumbar region for huge sacral chordoma patient who could not take supine potion

Yuto Kamioka (Yokohama Minami Kyosai Hospital)

# P-27 Improvement in the skin pressure sores on the patients' faces

LIN Jia-Rong (Changhua Christian Hospital)

# P-28 Improvement of Incontinence-associated Dermatitis

SHIUE Huei-Siang (Changhua Christian Hospital)

# P-29 Effects of Chemotherapy on Peristomal Skin

Jun Takahashi (Chiba Cancer Center)

# P-30 The application of ostomy skin tool to document the improvement of peristomal skin pressure injury

Yi Ti Liu (Ditmanson Medical Foundation Chia-Yi Christian Hospital)

P-31	Hospice Shared Care of Jejunostomy Leakage Combined with Macerated-associated Skin Damage HSIAO-CHUN HE (Cathay Medical Care Corporate Sijhih Cathay General Hospital)
P-32	Taking care of a patient who has successfully weaning from ventilator after a laparotomy combined with a total parenteral nutrition (TPN) supply CHANG CHUNCHI (ChangHua Christian Hospital)
P-33	Application of antibacterial dressings in peristomal infection Hsiao-Chun Ke (Kaohsiung Chang Gung Memorial Hospital)
P-34	Implement a Structured Care Regimen in Treat of Patient with Fecal Incontinence- Associated Dermatitis YU-CHIN HSU (Sijhih Cathay General Hospital)
P-35	Correlation between Faceplates of One-Piece Ostomy appliances and Physical Characteristics  Akiko Egawa (The Jikei University School of Medicine Daisan Hospital)
P-36	Comparison of surgical outcomes between Mercedes procedure and conventional primary closure in ileostoma reversal  Mayu Goto (Toho University Omori Medical Center)
P-37	A review of the literature for peristomal skin disorders in patients with metastatic colorectal cancer who received targeted therapies  Kazue Yoshida (Mie University)
P-38	Simulation program on management of colostomy for caregivers Chie Furukawa (Sanyo Gakuen University)
P-39	Standard procedure for loop stoma construction and closure Taito Tomita (Kanazawa Medical University)
P-40	Relief caused by medical device related pressure injury Wan-Ching LI (Sijhih Cathay General Hospital)



Mini Symposium

# S1-1

Lesson from The Past of ASSR

O Katsuhisa Shindo

Kindai University, PL General Hospital

**Purpose:** Our history of the ASSR shall be recognized to proceed further for our future.

Methods: Minutes of each council meeting were reviewed, and our congress journals of ASIAN OSTOMY were read through. My twenty-year experience as one of the founders and the past director general of the society may contribute discussion on our future business.

Results: Our society of ASSR was established as the Asian Forum of Stoma Rehabilitation in Taipei where the 7th biennial congress of AFCP was held in 1997. The first executive meeting was held in Beijing in 1999. The philosophy of our society was discussed. The first assembly was joined to WCET Congress in Singapore in 2000 but the first ASSR Congress was held in Osaka, April 2002. Since then 10 biennial congresses have been held in 10 countries. The society logo symbolizes our duty and significance: Stoma of the colon/urinary, Excretion of feces/urine, Ostomy everted through the abdomen, Handmade with the irregular shape of the stoma, Society philosophy of Asian friendship and collaboration among nurses, surgeons, and co-medicals, Continuous cure & care. We established Asian Stoma Nurse Program, Asian Stoma Funds, and Asian Joint Movement with ASPOA; Meeting and Ostomy Visitor System. These systems, however, are not successful yet. The reasons may be due to the weak relationship among country delegates, and their mother language difference or communication difficulty.

In addition to the continuity of our past actions, we can improve and progress such difficult systems through mutual tighter communication among executives. We work not only for promotion of the stoma science but for improvement of ostomates' QOL, which may necessitate the political or administrative movements by our medical data.

Conclusion: History is complicated, but the society is necessary to tighten closer communications among each country delegate by SNS or web meetings.

#### S1-2

Rehabilitation of an ostomate from my personal experience as a patient with a stoma

O Harikesh Gulabrai Buch

Bharatiya Arogya Nidhi Hospital

The health care professionals must be aware of the certain needs of the ostomates to avoid lots of complications after the stoma surgery and achieve full rehabilitation of ostomates to lead them as normal life as prior to their surgery and integrate them back in to the society.

As an ostomate for last 42 years this is what I have learned for rehabilitation to normalcy for patient with an ostomy.

Following are ostomates requirements, which if health care professionals can provide during peri operative time, it will be easy to rehabilitate them:-

- 1) Full information about their disease, diagnosis and treatment plan
- 2) Psycho social support
- 3) Physical requirement and support
- 4) Post-operative full rehabilitation programme
- 5) Back to pre-stoma life

They need to adapt to their new stoma life because two main concerns for ostomates are

- a) Change of body image due to creation of stoma
- b) Loss of sphincter control

The five stages of psychological responses after stoma surgery are Anxiety, Anger, Depression, Bargaining and Acceptance which were described by Mr. Kubler Ross in 1969.

Major issues and questions that most patients with stoma have are - Sharing information about their stoma life with others, Relationship issues, Returning to work, Clothing, Intimacy & sexuality, Diet and nutrition, Financial concerns and Travel and hobbies.

If health care professionals and an ostomy visitor can understand these, they would be able to help ostomates to overcome their concerns by pre and post operative counselling of their patients with stoma which will be able to facilitate their full rehabilitation.

# S1-3

Rehabilitation of Stomates: Role of family, society and the employer

#### O Ashok Kumar

Department of Surgical Gastroenterology, Sanjay Gandhi Postgraduate Institute of Medical Sciences

Rehabilitation of stoma patient must be an important component of treatment strategy which needs due attention. The objective of stoma rehabilitation should be to give a near normal quality of life to the stomates. The rehabilitation program includes preoperative counseling and post operative support. The component of rehabilitation include psychological, emotional and even financial support. It can be achieved through the provision of individualized comprehensive care where family, society and employer play important role, in addition to ET nurse and the treating physician. Most of the rehabilitation program include patients counseling and education before surgery, which continued in the post operative period and is mostly patients oriented. However, role of family/ carer, society and employer is lacking. Working patients, require privacy, special toilet, change of type of job, moral and financial support. Lack of social support may force - social discrimination, divorces and even termination or giving up jobs. These things happens at a time when such patient need more support from family, society and employer . This presentation is to highlight the importance of family, society and employer in stomate's rehabilitation and how it can be achieved.

#### S1-4

Surgical complications of intestinal stoma

# O Nihar Ranjan Dash

Department of Gastrointestinal Surgery, All India Institute of Medical Sciences

The complications of stoma are several but are largely avoidable.

Most complications are mild and more of an inconvenience, but some are potentially life threatening and require reexploration.

As with any surgical procedure, complications following a stoma can be divided temporally into early or late or according to the location of stoma in the gastrointestinal tract

Immediate

Early

Late

Functional

Psychosocial

Necrosis, ischemia, edema, bleeding, hematoma, wrong site

Retraction, mucocutaneous separation, stenosis, peristomal skin irritation, peristomal abscess/ fistula, obstruction, wrong limb maturation, wrong site

Prolapse, stenosis, retraction, obstruction, parastomal hernia, peristomal abscess/ fistula, disease recurrence, cancer,

Diarrhea, constipation, High output stoma

# Psychosocial

Prevention starts with thorough attention to preoperative preparation with patient counseling and marking of the stoma site, meticulous attention to gentle handling of bowel, creation of an adequately sized trephine, proper mobilization of the bowel to bring it out comfortably without excess tension or laxity while maintaining good vascularity and achieving a good pout, maturing stoma primarily in the operating theatre and continued care in the postoperative period with periodic counseling and support from the enterostomal therapist/ nurse. Stoma construction is no trivial undertaking, and should be given its due respect. Indeed, at the end of a long and technically difficult life saving surgery, it is the stoma that decides the quality of the patient's remaining life.

February 22 (Friday) 11:25~13:05 [Main Venue: Special Conference Room]

Mini Symposium 2

Chairs: Harikesh Gulabrai Buch (Bharatiya Arogya Nidhi Hospital) Katsuhisa Shindo (Kindai University, PL General Hospital)

# S2-1

Recent trend in the treatment of rectal cancer

# O Ho-Kyung Chun

Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine

With the development of science and technology, there have been considerable changes in surgery recently.

#### I. Laparoscopic surgery

Laparoscopic surgery now has become the preferred approach in the treatment of colorectal lesions, showing better short term and long term benefit compared with open surgery.

Survival rate for colorectal cancer in Korea has steadily improved from 58% in 1996 to 76% in 2014. This improvement probably results from nationwide long-term screening program for cancer control and academic society's effort to standardize, and spread the open and laparoscopic technique all around Korea.

Laparoscopic penetration rates for colorectal cancer has increased in Korea for the past decade. In anterior resection, laparoscopic rate was 63% in 2008, increased to 76% in 2013, and exceeded 81% in 2015. In low anterior resection, lap rate steadily increased from 44% in 2008 to 78% in 2015.

#### II. Robotic Surgery

After introduction of the first generation of da Vinci® Surgical System in 1999, its function has improved generation by generation. da Vinci® Xi which is optimized for complex procedures was introduced in 2014. The latest version, da Vinci® Xi Integrated Table Motion is now in the market. Major advantage of da Vinci® Xi Integrated Table Motion is no more redocking to change the table position during surgery.

As we can see better, do better and get precise dissection under robotic setting, we can get better functional outcome. However, robotic surgery has drawbacks that have to be overcome. The drawbacks are total loss of haptic feedback, limited range of motion of the robotic arms, longer operating time, no proven long-term oncologic benefit, and significant cost which is very important for most patients. So, still we have a question. "Does the patient really benefit from robotic surgery?"

#### III. Artificial Intelligence (AI)

This May, a pediatric surgeon at the Sheikh Zayed Institute reported that he successfully reconnected the intestines with sutures on 4 pigs without any direct human interaction using the Smart Tissue Autonomous Robot (STAR). The anastomosis was more accurate, evenly spaced and durable, and better withstood "leak" testing than those created by human hands.

He told that "Our hypothesis is you should be able to eventually program the entire surgical procedure beginning-to-end, intelligently and autonomously."

#### IV. NOTES (Natural Orifice Transluminal Endoscopic Surgery)

Surgery is getting less invasive, whereas endoscopic treatment is getting more aggressive. This evolution finally introduced NOTES. Certain demand for NOTES exists. NOTES is still in the early stage and has a long way to go. Cooperation of surgeons, gastroenterologists, engineers and industry is essential for further development of NOTES.

# V. Transanal TME (TaTME)

How to overcome limitation of laparoscopic rectal surgery in an obese male with a narrow pelvis who has bulky low rectal tumor and still preserve male sexual function? The answer could be TaTME (Transanal Total Mesorectal Excision). TaTME is mainly used for the surgical treatment of middle and low rectal cancer. TaTME is an endoscopic resection per anus using a "bottom up" approach and following TME principle with TEM or TAMIS platforms.

In 2013, Dr. Heald predicted that 2013 will be the year of endoscopic transanal approaches to radical low rectal dissection and anastomosis. However, we are still concerning of TaTME and waiting for the result of multi-center randomized controlled trials.

#### VI. NOSES (Natural Orifice Specimen Extraction Surgery)

NOSES (Natural Orifice Specimen Extraction Surgery) combines the conventional laparoscopic techniques with the concept of NOTES, which avoids the abdominal incision for specimen extraction. The use of natural orifice (anus or vagina) as an extraction site of surgical specimens, specifically in colorectal surgery, has the potential benefit of reducing pain and postoperative complications, which could result in shorter hospitalization and good cosmetic effect. We are still waiting for the results of prospective studies to assess the long-term benefits as well as survival results. Even though NOSES could not be a substitute for all laparoscopic colorectal cancer

Even though NOSES could not be a substitute for all laparoscopic colorectal cancer resection, NOSES could be an effective surgical approach for selected patients under strict criteria. I believe that NOSES will greatly increase over the next decade with the development of technologies and equipment.

#### S2-2

High output stoma: Implication and Management

#### O Hyeong-Rok Kim

Department of Surgery, Chonnam National University Hwasun Hospital and Medical School

Aim: Patients with high-output stoma (HOS) suffer from dehydration, which is the main cause of readmission after diverting ileostomy creation. This study aimed to evaluate the relationship between HOS, postoperative ileus (POI), and readmission after rectal cancer surgery with diverting ileostomy. Method: We retrospectively reviewed prospectively collected database of rectal cancer patients, and included 302 patients who underwent restorative resection with diverting ileostomy between January 2011 and December 2015. Patients with distant metastasis were excluded. HOS was defined as stoma with output of more than 2000 mL/day. POI was defined as a delayed food intake with clinical and radiologic findings of small bowel obstruction within 7 days postoperatively. We analyzed predictive factors for POI and readmission after rectal cancer surgery with diverting ileostomy, focusing on the existence of HOS.

Results: Forty-eight (15.9%) had HOS during hospital stay, and 41 (13.6%) patients experienced POI. HOS was associated with POI (45.8% vs. 7.5%, p < 0.001), which remained significant after adjustment of confounding factors (adjusted odds ratio [OR] = 9.140, 95% confidence interval [CI] 4.323-19.327, p < 0.001). The all-cause readmission rate was 16.9% (51/302). Of the readmission, 19 (6.3%) suffered ileus, and 20 (6.6%) were diagnosed with acute kidney injury. HOS was associated with all-cause readmission (27.1% vs. 15.0%, p = 0.040), while POI was associated with all-cause readmission (34.1% vs. 14.2%, p = 0.002) and readmission with ileus (17.1% vs. 4.6%, p = 0.007). POI was an independent risk factor for all-cause readmission (adjusted OR = 2.640, 95% CI 1.162-6.001, p = 0.020) and readmission with ileus (adjusted OR = 3.869, 95% CI 1.387–10.792, p = 0.010).

Conclusion: HOS was associated with POI, resulting in readmission especially by subsequent ileus, in patients with diverting stoma. Patients with HOS should be managed more carefully as to whether they would experience POI and readmission.

# S2-3

Pearls for Practice: Using Convexity in Ostomy Care

O Yun Jin Lee

Yonsei University Health System, Severance Hospital

Ostomy appliances with convexity is designed to interface with peristomal skin for patients' with stoma. Convex skin barriers promote a proper fit to prevent leakage and peristomal skin care with other treatment options. It functions to enable to maintain ostomy pouching system and make longer wearing time by pushing on the surrounding skin, opens or flattens skin folds or helps the stoma protrude more. There are 2 types of convexity for ostomy care which consists of soft and firm convex product. Selection of proper a convex type should be required sequential assessment depending on patients' condition including peristomal skin, pouching system wear time, and patients' preference,

Although a various types of convex appliances have been used for patients with different characteristics including depth and shape along with accessary in stoma types and skin folds, but there are limited evidence its practice guideline for appropriate using it.

It is necessary to establish guideline regarding 'CONVEXITY' to be able to reduce knowledge gap between actual practice, aspects of using convexity and guiding principle in clinical setting.

# S2-4

Spontaneously-closure cannula stoma: the principle and application

O Jianjiang Lin

The First Affiliated hospital of Zhejiang University

The anastomotic stoma leakage is a fatal operation complication in low rectal cancer patient. We usually do operation or other invasive methods to treat. The leak will lead sever post-operation results: infection, emergency operation, longstay in hospital, high hospitalization cost, etc. The best way is to prevent leaking. Compared with traditional stoma operation (loop enterostomy), the spontaneously-closure cannula stoma is a more simple, practical and effective. What we use for stoma is trachea cannula with ideal rigidity and resilience. The designed location of stoma is usually right-lower quadrant, where the skin is flat enough for colostomy bag. During the operation, we drain the cannula into ileum and fix the ileum to the abdominal wall. After injecting a certain volume of water to cannula aerocyst, we strapped the tube in designed location with bag covered. 2-3weeks later, the cannula will be removed and the stoma will close in later 3-5days. Totally, we have taken the spontaneously-closure cannula stoma way in more than 1000 patients and obtained clinical and finacial benefits in the past 13 years.

Infections in stoma: challenges in diagnosis & management

O Vijaya Lakshmi Nag<sup>1)</sup>, NR Dash<sup>2)</sup>

Department of Microbiology, All India Institute of Medical Sciences  $^{1)}$  ,

Department of Gastro Intestinal Surgery & Liver transplant, All India Institute of Medical Sciences<sup>2)</sup>

The most common ostomies are ileostomy, colostomy, urostomy & nephrostomy. The peristomal skin plays an important role in the normal use of stoma appliance. Skin problems often reduce the base plates' ability to attach and may lead to leakage, which can be socially restricting or, in some cases, even debilitating. The integrity of the peristomal skin is therefore of the outmost importance to the patients. Peristomal skin infections is common problem, as the environment of the skin under skin barrier wafers is warm, dark, moist and intermittently soiled by urine or stool which provides an ideal setting for microbial growth. Furthermore, many ostomy patients may be immunosuppressed due to general ill health, diabetes, cancer therapies, or immunosuppressive agents used to treat inflammatory bowel disease. Lyon and Smith found that swabs of the peristomal skin of their patients revealed a range of colonized bacterial and fungal organisms. Due to colonization, all wounds are at risk of infection.

Primary peristomal skin infections due to bacteria include folliculitis and impetigo. Folliculitis is the infection of the hair follicle by *Staphylococcus aureus* or streptococci and commonly results from shaving or pulling of hair when the pouches are changed. The lesions looks like small circular ulcers or pustules.

Secondary bacterial infection occur in cases of already existing skin problem such as eczema or damaged skin. Clinically they look yellow with rusted inflammation.

The warm humid condition of stoma favor growth of *Candida albicans*. The infection present as itchy bright erythema & satellite vesicles. Colonization of the peristomal skin with *Candida albicans* is common, although a frank Candida peristomal skin infection is less common.

Peristomal viral infections are less common than fungal or bacterial infections, but when they do occur, they can present treatment challenges, particularly as they relate to increased pain and interference with the skin barrier-to-skin adhesion. Perhaps the

most common are herpes zoster (shingles) and herpes simplex. These lesions can become secondarily infected, often by staphylococci. For diagnosis of peristomal skin infections, the lesion should first be inspected for type of lesion, discharge if any and change in color of surrounding skin. In case of suspected bacterial infection, the pus/discharge from the ulcer should send for culture and sensitivity. In case of suspected fungal infection, the skin scrapings is required.

Treatment consist of proper care of stoma by keeping the area dry and removal of hair from surrounding area by trimming technique. In case of bacterial infection, specific oral or topical antibiotic can be used, if needed. Treatment with specific oral antibiotics are prescribed after getting culture and sensitivity report.

Treatment in Secondary bacterial infection cases involves identification of pathogens and their possible antibiotic resistance patterns and subsequent use of appropriate oral antibiotics.

In case of positive fungal culture, the treatment is first to provide a dry environment using antifungal powders such as mycostatin powder. The oral antifungal are only recommended if the infection is not resolved due to topical use of antifungal.

Treatment in case of confirmed viral infection is a challenge.

The correct stoma construction, persistent vigilance for any peristomal skin rash or redness and correct stoma care are the key to prevent complications. Chairs: Tzu-Chi Hsu (Mackay Memorial Hospital, Mackay Medical College, Taipei Medical University)
Yu Okazawa (Juntendo Faculty of University)

# S3-1

Covering ileostomy or colostomy? The argument continues.

O William Chia Shing Meng

Drs Anderson & Partners

#### INTRODUCTION

To decrease the consequence of anastomotic leakage in low anterior resection, covering ileostomy or colostomy. There was great controversy throughout the years.

### **METHODS**

We conducted a literature search to identify recent studies and also to invite for expert opinion from large volume centres in China. We focused on the preference and changes of logarythm through the years and the wisdom behind.

#### **RESULTS**

Systematic review, meta-analysis, and cumulative meta-analysis did not show any statistically significance with regard to the superiority of one procedure over the other. Colostomies tend to have more complications related to stoma reversal, such as wound infection, prolapse and incisional hernia. However, studies are hetergenous and there were many confounding variables. Various patient factors should be taken into consideration when deciding on covering ileostomy or colostomy.

### CONCLUSION

Covering ileostomy may be superior to covering colostomy with respect to a lower prevalence of surgical complications. However, there is no concrete evidence. The method of choice should be customized to each patient.

#### S3-2

A questionnaire survey on difficulties experienced in daily life by ostomates in Japan

 Hitomi Kataoka, Yoshiko Ando, Yukie Sakai, Toshie Tsuchida, Yasumi Matsubara, Yoko Mitomi, Mitsuko Watanabe

Non-Profit Organization Stoma Image Up Project

#### [Purpose]

The purpose of this study was to clarify the difficulties experienced in daily life by ostomates depending on the types of ostomy and postoperative time.

[Methods]

The questionnaires, which centered on difficulties experienced in daily life, were distributed among ostomates. Fourteen distributors enclosed the questionnaires at random upon sending the ostomy appliances.

#### [Results]

In total, 603 colostomates, 103 ileostomates and 203 urostomates participated in present survey. In terms of age, over 80% of colostomates and urostomates were over 60 years old, on the other hand, 66% of ileostomates were less than 60 years old. With regard to postoperative time, 30% of colostomates and urostomates were 1 to 3 years, whereas 23% of ileostomates were less than 6 months. The most common difficulties experienced in stoma management were as follows: In colostomates, there was a ballooning of ostomy bags (48%); in ileostomates, there was ballooning of ostomy bags (53%) and the price of appliances were high (53%); in urostomates, there was pouch leakage (38%). In terms of daily experiences, regardless of the types of ostomy, about 60% of ostomates were not to allowed to go to a hot spring. With regard to socioeconomic aspect, there were payments exceeding the amount of subsidies in colostomates, ileostomates and urostomates (43%, 39.8% and 49%, respectively). With regard to postoperative time, there were some differences between ileostomates and urostomates in terms of stoma management. In terms of going to a hot spring. regardless of the types of ostomy and postoperative time, about 50% of ostomates had experienced difficulties. Furthermore, over 30% of colostomates and urostomates had payments exceeding the amount of subcidies regardless of the postoperative time elapsed. [Conclusion]

There were some unique difficulties depending on the types of ostomy and postoperative time.

# S3-3

Standardized procedure for diverting loop ileostomy at a high-volume cancer center in Japan

O Akira Ouchi<sup>1)</sup>, Koji Komori<sup>1)</sup>, Takashi Kinoshita<sup>1)</sup>, Taihei Oshiro<sup>1)</sup>, Hitomi Kojima<sup>2)</sup>, Terumi Sasaki<sup>2)</sup>, Mayumi Agata<sup>2)</sup>

Department of Gastroenterological Surgery, Aichi Cancer Center Hospital<sup>1)</sup>.

Department of Nursing, Aichi Cancer Center Hospital<sup>2)</sup>

Purpose: The technique of fecal diversion has been increasingly used for rectal surgery with low or superlow anastomosis. Although the higher rate of stoma complication in the previous reports, loop ileostomy is better as for blood supply to the remaining colon. Here, we would like to show our surgical technique for loop ileostomy and evaluate the outcomes.

Method: All patients undergo preoperative stoma site marking. After proctectomy, circular incision is placed on the site mark. Vertical fascial incision is made, and rectus abdominis muscle is bluntly split. The trephine should be enough to put two fingers. The proximal and distal limb are fixed and brought through the abdominal wall more than two fingers. The fascia and peritoneum are sutured, and the ileum loop is fixed with the same suture. After closing all wounds, the distal limb is opened, eversion sutures are placed, and lastly 10 to 12 mucocutaneous sutures are placed.

Result: Between 2013 and 2017, we experienced 140 proctectomy with diverting loop ileostomy. Seventy (50%) patients developed early skin irritation, but all except 2 patients were controlled with conservative management by certificated WOC nurses. Median maximum output was 1,185ml from stoma, but only 4 (3%) patients required readmission for dehydration. Forty-two of 140 patients received adjuvant chemotherapy with ileostomy. resulting no interruption of chemotherapy due to stoma complication for all except 1 patient (skin irritation). Eventually 130 (93%) patients underwent stand-by stoma closure, 6 (4%) patients underwent urgent closure (2 skin irritation, 2 diarrhea, 1 outlet obstruction, 1 stoma management), and only 4 (3%) patients remained with ileostomy (2 coloanal leakage, 1 recurrence, 1 patient's desire).

Conclusion: Diverting loop ileostomy is safe and feasible for rectal surgery with low or super-low anastomosis when performed with standardized procedure and managed with the cooperation of WOC nurses.

#### S3-4

Temporary diverting stoma in surgery for rectal cancer

Masaya Kawai<sup>1)</sup>, Shiori Takebe<sup>2)</sup>, Rina Takahashi<sup>1)</sup>, Yu Okazawa<sup>1)</sup>, Shingo Kawano<sup>1)</sup>, Yutaka Kojima<sup>1)</sup>, Michitoshi Goto<sup>1)</sup>, Kazuhiro Sakamoto<sup>1)</sup>

Department of Coloproctological Surgery, Faculty of Medicine, Juntendo University School of Medicine<sup>1)</sup>, Department of Medical care service support center, Patient and nursing consultation, Juntendo University School of Medicine<sup>2)</sup>

Introduction: There is a general consensus that it is of benefit to create a diverting stoma (DS) during surgery for rectal cancer in order to avoid anastomotic leakage. However, stoma-related complications are not uncommon. Materials and Methods: A total of 313 patients with rectal cancer (RS-Rb) who underwent radical surgery between 2005 and 2014 were included. Patient characteristics, perioperative factors, and postoperative outcomes were compared between those with and without DS (DS (+) and DS (-), respectively). Rates of stoma-related complications were also examined. Results: Low anterior resection (LAR, n=257, 82.1%) was the most common procedure, followed by intersphincteric resection (ISR, n=28, 8.9%) and high anterior resection (HAR, n=27, 8.6%). DS was created in 87 patients (27.8%). The rate of postoperative ileus was significantly higher in DS(+) patients compared with DS (-) patients (p=0.005). There were no significant differences in the rates of anastomotic leakage (p=0.69) or surgical site infection (p=0.35) between the groups. Similarly, there was no significant difference in the rate of reoperation, with 5.7% (n=5) and 3.5% (n=8) in DS (+) and DS (-) groups, respectively. In the early stage of stoma-related complications, high output (n=31, 35.6%) was the most common complication, followed by outlet syndrome (n=7, 8.0%), electrolyte abnormalities (n=6, 6.8%), and leakage (n=6, 6.8%). Stenosis (n=7, 8.0%) and parastomal hernia (n=2, 2.3%) occurred in the late stage. Stoma-related complications led to reoperations in DS (+) patients. Conclusion: Reoperations in DS (+) patients were performed as a result of stomarelated complications. Our findings suggest that DS creation should be considered carefully.

Mini Symposium 4

Chairs: William Chia Shing Meng (Drs. Anderson & Partners)

Akira Ouchi (Aichi Cancer Center Hospital)

# S4-1

Blowhole enterostomy is feasible under local anesthesia, and may guide to APR without an abdominal incision

#### O Tzu-Chi Hsu

Division of Colon and Rectal Surgery, Department of Surgery, Mackay Memorial Hospital; Department of Surgery, Mackay Medical College; Department of Surgery, Taipei Medical University

#### Background:

Enterostomy is usually performed together with an abdominal incision. An enterostomy can actually be performed without an abdominal incision. Besides, an abdominoperineal resection can also be accomplished with a hole for stomy and perineal incision without an abdominal incision (modified Miles' operation).

#### Aim:

To evaluate a single surgeon's experience of an enterostomy through a blowhole without an additional abdominal incision for a variety of diseases and conditions.

#### Materials and Methods:

From February 1999 to January 2018, 158 patients had creation of enterostomies by a single surgeon for variety of diseases or conditions. Reasons for creating a stoma were related to colorectal malignancies in 52 patients, related to gynecological malignancies in 59 patients, related to urological malignancies in seven patients, for anastomotic leakage in 13 patients and for miscellaneous causes in 27 patients. Additionally, sixty patients had modified Miles' operation for rectal cancer from September 2001 to January 2018.

#### Results:

136 enterostomies were performed under local anesthesia, 21 enterostomies were performed under general anesthesia. Location of stomas were 154 in the transverse colon, three in the sigmoid colon and one in the ileum. Operative mortality was  $7/158\ (4.42\%)$ , and complication was  $7/158\ (4.42\%)$  in the series. In the patients with modified Miles' operation, there was no operative mortality, and complication was  $6/40\ (15\%)$ .

#### Conclusion:

Creating a stoma through a blowhole without an abdominal incision is feasible and associated with low morbidity and mortality. It can usually be performed under local anesthesia without risk of general anesthesia. Blowhole enterostomy is cheaper, quicker and less risky than laparoscopic procedure and avoid cumber caused by laparoscopic equipment. Besides, modified Miles' operation is cheaper, avoid cumber caused by laparoscopic equipment and offers patient less abdominal pain, less likely to compromise respiratory function and easier care of stoma without interference of the abdominal incision.

#### S4-2

Skin-approximating closure with a subcuticular purse-string plus negative pressure wound therapy for stoma closure

○ Yu Okazawa<sup>1)</sup>, Rina Takahashi<sup>1)</sup>, Masaya Kawai<sup>1)</sup>, Yutaka Kojima<sup>1)</sup>, Michitoshi Goto<sup>1,2)</sup>, Shiori Watanabe<sup>3)</sup>, Kazuhiro Sakamoto<sup>1)</sup>

Department of coloproctological surgery, Juntendo Faculty of  $\operatorname{University}^{1)}$ ,

Department of Surgery, Rinkai Hospital<sup>2)</sup>,

Department of Nursing, Juntendo Faculty of Medicine<sup>3)</sup>

Purpose: In order to control surgical site infection after stoma closure, the effectiveness of a skinapproximating closure method with a subcuticular purse-string (PSC) has been reported. The aim of this study was to investigate whether PSC plus negative pressure wound therapy (NPWT) can induce rapid wound healing to prevent surgical site infection and the esthetic outcomes. Methods: Ninety patients treated with PSC or PSC plus NPWT between January 2015 and August 2018 were divided into two groups. Thirty-nine patients were treated with PSC and 43 were treated with PSC plus NPWT. Eight patients who did not undergo NPWT therapy as planned were excluded. The NPWT system was used from the next day until 7 or 14 days after surgery. The length, width and depth of the wound were measured the next day, 3 days and 7 days after surgery, and the reduction ratio was calculated. Results: No significant differences were observed in age, stoma holding period, postoperative hospital stay, preoperative TP, preoperative Alb, operation time, loss of blood or follow-up period between the two groups. A significant difference was observed in body mass index. Four patients in the PSC group and 5 in the NPWT group required stoma closure of the colon, but no significant difference in the reduction ratio at 7 days after surgery was noted between them. Surgical site infection was confirmed in one patient in the NPWT group. Ventral hernias were confirmed in one patient in the PSC group and 2 patients in the NPWT group. NPWT was unable to be performed due to pain (4 patients), bleeding (3 patients) or infection (2 patients). Ventral hernias developed in 2 of these patients. Conclusion: In this study, NPWT was not effective for wound healing. NPWT must be used properly in consideration of these complications.

#### S4-3

Method for preventing wound infection in the closure of ileostomy

O Kohei Fukuoka<sup>1)</sup>, Fumikazu Koyama<sup>1,2)</sup>

Department of surgery, Nara medival university<sup>1)</sup>, Department of endscopy, Nara medical university<sup>2)</sup>

Purpose: The ileostomy is a procedure performed to maintain rest at the anastomotic site after surgery such as inflammatory bowel disease or lower rectal cancer. After that, the closure of ileostomy is considered to be small surgery, but postoperative complications are frequent, especially wound infection is high rate of 2 to 41% In our department, we have reported that wound infection decreases by doing a thorough clean operation and performing subcutaneous buried suture with an absorbable thread and using closed negative pressure drain at the time of surgery of closure of ileostomy. I will show the method of the closure of ileostomy in our department. Methods: From January 2010 to July 2016, 76 cases who underwent the closure of ileostomy were enrolled. We compared this group with the group before the introduction of the procedure. Results: Age was 57 years (13-81), 91 males, 61 females, BMI 21.8 (15.5-29.3). Primary diseases were 52 cases of ulcerative colitis, 80 cases of colorectal cancer, and 13 other cases. The operation time is 121 minutes (54-340), the bleeding is 17.5 g (0-140), the anastomosis method is the end- For example, there were 35 functional end-to-end anastomoses. Postoperative wound infection was 1.3% (1/76), which was significantly reduced (p = 0.034) compared with 9.3% (7/75) in the 8 years before the introduction of the procedure. Conclusions: In the closure of ileostomy, ingenuity such as thorough cleansing operation, closing negative pressure drain, dermal suturing with monofilament absorbing threads, etc. was considered to be useful for reduction of postoperative complications.

#### S4-4

Standardization of laparoscopic stoma closure after Hartmann's operation

O Daisuke Yamamoto, Hiroshi Saito, Shoko Hara, Ikumi Murata

Ishikawa Prefectural Central Hospital

BACKGROUND: Stoma closure after Hartmann's surgery for sigmoid colon perforation is usually performed by laparotomy in consideration of postoperative adhesions. We started laparoscopic stoma closure after Hartmann's operation from 2013, gradually to standardize the procedure, we obtained good results with low invasion and report it. METHOD: In consideration of adhesion, operation is carried out at an interval of 6 months from the initial surgery. First, close the stoma and cut the periphery of the stoma. We reach the inside of the abdominal cavity, insert a wound retractor, and we will be pneumoperitoneally gloved. If there is adhesion with the abdominal wall, laparoscopic dissection is performed and the operation is done with 5 ports. Peel off the adhesion of the small intestine in the pelvis, and mobilize the descending colon to the splenic flexure. If the residual colon is difficult to understand, intraoperative endoscope is very useful. Do a Gambee anastomosis or instrument anastomosis at the length of the residual colon. RESULT: From January 2013 to December 2017, nine patients who closed the ostomy under laparoscopic surgery before Hartmann's surgery were examined retrospectively. One case was laparotomized due to adhesion. The median age was 70 years, the median surgical time was 265 minutes, and the median bleeding volume was 100 ml. Three cases performed Gambee anastomosis, and six cases performed instrument anastomosis. The median postoperative hospital stay was 11 days, and the postoperative complication was a case of ileus. CONCLUSION: Laparoscopic stoma closure after Hartmann's operation can be performed safely, and there was no major complication during and after surgery, and it seemed possible to minimally invasively by standardizing the procedure.



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Free Paper

Chairs: Ashok Kumar (Sanjay Gandhi Postgraduate Institute of Medical Sciences)

Daisuke Yamamoto (Ishikawa Prefectural Central Hospital)

# O1-1

Implementing the 20/40 Focus Group of the ASPOA intended for young adult ostomates: assuring the continuity of stoma associations

O Ronaldo Saguiguit Lora

Asia and South Pacific Ostomy Association

#### Background

Ostomy Support groups for young people belonging to the age bracket of 20 to 40 years old form an important component with stoma associations. This structure aims to focus on psychosocial issues typical for young ostomates and likewise an opportunity to become active members and future leaders of the stoma association. However, the impact of the 20/40 focus group movement has not been fully implemeted and capitalized in the Asia and South Pacific region.

#### Purpose

The purpose of this commentary is to outline the period in time where the formation of the 20/40 Focus Group structure was definitively adopted by an ostomy association.

#### Methods

The use of electronic database and relevant literature from 2008 to 2013 was sourced from the evaluations of the International Ostomy Association and the former Asian Ostomy Association.

# Results

The 20-40 Focus Group Movement for young adult ostomates in the Asian Region was institutionalized during the 6th Asian Ostomy Association in Tokyo, Japan in 2008. All participating countries were introduced to the formation of the 20/40 satellite desks. The formation of support groups for young ostomates was a starting point to gather young people, either face to face or through an online support group, to discuss issues relevant to their age bracket.

# Conclusions

Implementing support groups for young adult ostomates as an intervention is expected to have a high impact and quality of life. This benefits the stoma association as well with capable young ostomate adults as future leaders.

**Keywords:** 20/40 Focus Group, Asia South Pacific Ostomates for Young Adults, ostomy support groups for young ostomates

# O1-2

Clinical experience of negative pressure wound therapy using portable device for the wound management in stoma closure

O Hiroshi Saito, Daisuke Yamamoto

Department of gastroenterological surgery, Ishikawa prefectural central hospital

Purpose: Recently, there are some reports which suggest the usefulness of Negative pressure wound therapy (NPWT) for the wound management in stoma closure. We adopted NPWT using portable device from September 2017. The aim of this study is to evaluate the usefulness of NPWT with stoma closure. Method: From September 2017 to July 2018, 19 patients who underwent stoma closure were included. The portable device of NPWT (PICO) was applied to all patients just after surgery. We examined some clinical factors, retrospectively. Result: 19 patients were treated with PICO after surgery. The median age was 67 (50-75) years old. 15 patients were for diverting ileostomy, 3 were ileostomy for anastomotic leakage, and 1 was Hartmann operation. The median term from construction to stoma closure was 184 (105-527) days. The length of treating with PICO was 8 (6-11) days. There were 3 patients who underwent postoperative ileus, and a patient experienced seroma. The postoperative hospital stay was 8 (7-30) days. The length to epithelialization was 39 (24-84) days. The questionnaire for nurses revealed the time of wound management was shorter using PICO. Conclusion: We experienced the NPWT using portable device for the wound management in stoma closure. Serious complication was not detected, and the patients could be discharged early.

Keywords: NPWT, stoma closure

# O1-3

EVALUATION OF NURSE KNOWLEDGE IN STOMA CARE AFTER STRUCTURED TRAINING

○ Muh Adan Kurniawan<sup>1)</sup>, Dwi Nurfaidah<sup>2)</sup>, Hetreda Ketno<sup>2)</sup>, Haryanti Sulmi<sup>2)</sup>

Hasanuddin University<sup>1)</sup> , Stikes Mega Rezky Makassar<sup>2)</sup>

Along with the development of science and technology, progress in various fields began to increase, even in the health sector, especially wound care, which attracted the attention of health workers in the world. However, most nurses in hospitals and health centers did not understand the importance of knowledge about wound care, especially stoma to prevent complications. The purpose of this study was to look at the effects of training in stoma care in assessing nurses' knowledge of stoma care in Makassar, Indonesia. Method Quantitative research method with quasi-experimental design, with a total sampling technique and a total population of ninety five nurses who attended training in colostomy care by the PPNI Commissariat Hospital. Daya Makassar, Indonesia. Results of the training evaluation analysis of post-test respondents, this shows that there is a significant increase in nurses' knowledge of colostomy care after training. In addition, according to gender, the biggest increase occurred in women compared to men, while the results based on the analysis of education levels showed an increase. But it is higher for nurses with an undergraduate education level. Conclusion Based on the results of the analysis, it can be concluded that training in colostomy care has a positive effect on the assessment of nurses' knowledge implementers in Makassar, Indonesia. In addition to the level of knowledge and gender, also indirectly influences the process of increasing knowledge of nurse.

**Keywords:** Evaluation knowledge of stoma care, the effect of stoma training on the implementation of nurses, stoma care of nurse

# 01-4

A case study of gaps in knowledge and attiudes regarding colostomy care in Sri Lanka

O Maggonage Upul Pathmasena

National Hospital Of Sri Lanka

### Purpose:

- To identify deficiencies in knowledge and attitudes in the management of colostomy - a case study from Sri Lanka.

#### Method:

- A 46-year-old Buddhist monk who lives in a remote village in central, Sri Lanka had undergone an abdomino-perineal resection for a rectal cancer at the age of 23 years in 1995. This was a period where stoma care was not well established in the country and there was a lack of availability of colostomy care products. Three years after the index operation he had defaulted followed up due to distance he had to travel and frequent unavailability of colostomy devices from the hospital. Over the next 20 years he had been using improvised devises made out of cotton and polythene bags in place of a colostomy bag. This had severely limited his quality of life including his social interactions. He had hardly gone out of his temple due to restrictions with this improvised device during this period.

#### Results:

- Six months ago, he came into contact with a stoma care nurse who introduced him to colostomy devices and arranged him with a continuous supply of bags. Within a couple of months, he was able to completely transform his life and was able to travel around the country and even overseas without any major restrictions.

#### Conclusion:

- Although Sri Lanka has a well-developed universal free health care system still there are many deficiencies, especially in relation to access to specialized care services including stoma care. Our experience suggests that improving the availability of stoma care in the country has the potential to transform lives of any patients who still do not have access to such services, and are experiencing a substandard quality of life.

**Keywords:** Improvised stoma, Knowledge and attitudes, Quality of life

# O2-1

Quality of life in Japanese patients with urostomy

○ Tomoki Yamamoto¹¹, Sadanori Kamikawa¹¹, Katsuhisa Shindo²¹, Yuko Honda³¹, Fujiko Yamaguchi⁴¹, Ken Nakata⁵¹, Mutsumi Fukunaga⁶¹, Tadashi Onishi⁻¹¹

Department of Urology, Osaka City General  $\operatorname{Hospital}^{1)}$  , PL  $\operatorname{Hospital}^{2)}$  ,

Department of Nursing, Osaka City General Hospital $^{3)}$ , Division of Nursing, PL Hospital $^{4)}$ ,

Department of Colorectal Surgery, Sakai City Medical  $Center^{5}$ ,

Department of Digestive Surgery, Hyogo Prefectural Nishinomiya Hospital<sup>6)</sup>,

Department of Surgery, NTT West Osaka Hospital<sup>7)</sup>

Objective: It is expected that the quality of life (QOL) of patients with stoma (ostomates) varies depending on the type of the stoma, but details are not clear. We compared the QOL of patients with urinary tract stoma (urostomates) with the national standard value and those with gastrointestinal stoma. Patients and method: From May to July 2015, we conducted health related QOL survey (SF - 8) by mailing to ostomates belonging to the Japan Ostomy Association, and received responses from 2061 people. The diversion types of the urostomates were 411 ileal conduits, 72 ureterocutaneostomies (one side) and 14 ureterocutaneostomies (both sides). The responses were compared with the national standard value. Result and Conclusion: The QOL of urostomates was both physically and mentally lower than that of the national standard value, and especially that of the ureterocutaneostomies on both sides was remarkably low. On the subscale, the body function, the social life function, and the daily role function of urostomates are lower than those of national standard value, however overall health, vitality, and physical pain of the urostomates were higher than those of the national standard value. The more time after the operation went by, the more the QOL of the urostomates became higher. The QOL of younger urostomates under 50 years old was lower than that of older urostomates. In comparison with the types of stomas, the QOL of urostomates with ileal conduit is the higher than that of ostomates with gastrointestinal stoma and ureterocutaneostomy. The QOL of urostomates was lower than that of the national standard value, because of the restrictions on physical activity. These restrictions are cause of the indwelling catheter and the difficulty of the ostomy appliances fixation. Therefore, we need intensive stoma care, particularly in the preoperative and early postoperative

Keywords: Quality of life, urostoma, Japanese

#### O2-2

Chairs: Ho-Kyung Chun (Kangbuk Samsung Hospital, Sungkyunkwan University School of Medicine)

First Application of Ultrasound to Examine Bowel Movement in Stoma Patients (Hong Kong)

O Chi Wai HO, Wai Yan CHAN, King Yim LAU, Chi Wai LAU, Chung Ngai TANG

Pamela Youde Nethersole Eastern Hospital, Hong Kong

Purpose Life adaptation, peristomal and parastomal skin are common major concerns in every stoma patient. Instead, their bowel movements are rarely reported. Sometimes they may experience abdominal bloating when constipation. Despite the bowel can be grossly investigated by X-ray imaging, it often delays. Auscultation of bowel sound can be conveniently assessed by stethoscope, but it may be influenced by environment and highly subjective. The aim of this study is to introduce the ultrasound technology to examine the bowel function in stoma patients. Methods During the ultrasound examination on parastomal spaces, using the linear probe and the frequency was calibrated down to 4.2Mhz. Probe fanning and rotation were the key orientation to visualize the bowel loop under the abdominal wall. The bowel movement could be clearly noted just down below the rectus abdominis muscle. Presence of fecal impaction could be further examined distal down to the colostomy. Using the Pulse Doppler, the bowel sound, waveform and scale could be characterized. Results During July to August 2018, 10 patients with ended sigmoid colostomy recruited. 7 patients reported normal bowel sound and waveform. 1 patient experienced halted bowel movement for postoperatively intestinal ileus. 2 stenosis stoma patients reported significantly low in bowel movement, and the Pulse Doppler showed weak waveforms. Conclusion The study identified particular concerns related to bowel examination on stoma patients. By the ultrasound technology, the bowel movement, bowel sound, waveform and fecal impaction could be easily characterized. A limitation of our study is the small samples and local segment of bowel loop in parastomal spaces examined in patient group. The follow-up correlation study on bowel functions using the ultrasound will be studied in near future. However, the pioneer application of ultrasound in stoma care nursing which is the milestone to develop advanced nursing practice in stoma care.

Keywords: Ultrasound, Bowel Movement, Stoma

# O2-3

DISCUSSION ON 7 CASES WITH INHIBITION OF UPPER GASTROINTESTINAL SECRETIONS BY REINFUSION OF SUCCUS ENTERICUS INTO THE DISTAL BOWEL

○ Nguyen Thi Kim Phuong<sup>1)</sup>, Nguyen Huu Thinh<sup>2)</sup>, Hoang Danh Tan<sup>3)</sup>, Nguyen Thi Lam<sup>4)</sup>, Nguyen Thi Thuong<sup>4)</sup>

Former Head Nurse of Gastrointestinal surgery Department and Stoma Nurse<sup>1)</sup>,

Head of Training and Scientific Research Department Colo-rectal Surgeon at University Medical Center Lecturer at University of Medicine and pharmacy at Ho chi Minh city²¹, Head of Gastrointestinal surgery Department Surgeon at University Medical Center, Lecturer at University of Medicine and pharmacy at Ho chi Minh city³³, Enterostomal therapy Nurse at Gastrointestinal surgery Department⁴¹

[1. Introduction] In some patients have undergone double barrel stoma construction because of disease situation. The replacement of fluid and electrolyte via venous line is usually insufficiency. The juice that been collected from proximal intestinal stomas can be used to reinfuse succus entericus and provide adequate enteral nutrition. However, inhibition of upper gastrointestinal secretions by reinfusion of succus entericus into the dital bowel is new in VietNam. The concept of reinfusing succus entericus into the distal bowel has been limited to case reports. [2. Methods] We prospectively studied on 7 patients, who had complete diversion of intestinal continuity by stoma in one big hospital in VietNam from 2014 - 2017 with hight output stomas from 2000 - 4000 ml per day. All the cases received emergency operation. They losed weight from 10-20 kg before beginning succus entericus reinfusion. The proximal intestinal effluent was collected by stoma bags, and recycled into the distal small bowel via foley 30Fr. Related serum protein levels were measured. [3. Results] As compared to prereinfusion, the absorption rate of carbohydrate increased after succus entericus reinfusion. Albumin increased an average of 6.52 g/L after reinfusion. Their average weight increased significantly as well 6.4 kg. However it has some difficulty also with stoma complications as stomal prolapse or peristomal skin problems. [4. Conclusion] Benefits of this technique are control of fluid and electrolyte balance in patients with high output stomas and optimal utilization of remaining absorptive capacity for enteral nutrition. All 7 patients highlights the critical importance of all members of the care teamfamily members, doctors, dietician, enterostomal therapy nurse, nurses and other health care providers -working together to improve their heath.

**Keywords:** reinfusion of succus entericus, jejuostomy, short bowel syndrome

# O2-4

Robotic equipment in upper limb amputations

Omar FADILI

University Hassan 2

The human hand is a very important member in our daily life, it is necessary in any activity. However, loss as a result of trauma, accident or other cause can have a detrimental effect on the individual's personal, social, psychological and economic life. Therefore, the establishment of a robotic device to restore the important functions in the simulation of the functions of a biological standard is of interest. We designed and created a robotic device, which served to the patients, who lost upper limb, to have a bionic hand under the vocal or myo-electrical command, and which can reproduce the movements elementals of a biological hand. During the design and manufacture of the equipment, we tried to respect the biomechanical rules of the physiological principle. We will present the different stages of realization and manufacture of this robotic device, as well as a demonstration. The manufacture of the equipment passes through the main stages: 1. 3D modeling: it is the geometric design of all the pieces on a computer, but also to export these pieces in the form of a file accessible at any time. 2. 3D printing: it consists of converting a virtual computer file into a real object, via a 3D printer. All the printed parts are brought together to form all the equipment. 3. Motorization and implementation of the electronic circuit: we installed servo-engines (one responsible for the pronation / supination of the forearm and 5 for the mobilization of the fingers). These servo motors are connected to an electronic card with a programmable microprocessor. Amputation is a big problem; this bionic hand is an ultimate solution for these patients and allow them to recover their hand functions.

Keywords: Prosthetic, Hand, Amputation

# O2-5

Effectiveness of chronic constipation care based on the observation of feces in descending colon and rectum using ultrasound images for a community dwelling old adult: Case report

○ Mikako Yoshida<sup>1)</sup>, Masaru Matsumoto<sup>1)</sup>, Koichi Yabunaka<sup>1,2)</sup>, Shingo Okada<sup>3)</sup>, Hideki Ota<sup>4)</sup>, Yohei Okawa<sup>2)</sup>, Gojiro Nakagami<sup>2,5)</sup>, Yuka Miura<sup>6)</sup>, Hiromi Sanada<sup>2,5)</sup>

Department of Imaging Nursing Science, The University of  $Tokyo^{1)}$ .

Global Nursing Research Center, The University of  $Tokyo^{2)}$ , Kitamihara Clinic<sup>3)</sup>,

Activities Supporting Medicine Systematic Services<sup>4)</sup>, Department of Gerontorogical Nursing / Wound Care Management, The University of Tokyo<sup>5)</sup>,

2.Institute for Frontier Science Initiative, Kanazawa University<sup>6)</sup>

Purpose: Although care for chronic constipation differ between primary causes of constipations: colonic motility dysfunction and defecation dysfunction, many old adults with constipation receive uniform care without assessment of physiology. This study reports a case who was able to defecate independently after receiving the constipation care based on the assessment of primary cause of constipation by the ultrasound. Methods: An old adult using visiting nursing due to constipation was recruited. A nurse, who completed an education program concerning the use of ultrasound to assess constipation, observed feces in descending colon and rectum by ultrasound. After sharing the assessment of primary cause of constipation based on the ultrasound images between nurses and the doctor in charge, new constipation care was provided to the old adults. Results: A female of 91 yeas old had received digital disimpassion twice a week. At ultrasound observation, high echoic area and acoustic shadow, a sign of hard stool, were widely observed in the descending colon and rectum, which meant that she had both colonic motility dysfunction and defecation dysfunction. After change of laxatives from magnesium oxide to chloride channel activator for colonic motility dysfunction, she became able to defecate normal stool independently in the bathroom. Conclusion: The monitor for condition of feces in descending colon and rectum using ultrasound would be helpful to provide constipation care to individuals, which leads to bring dignity in him/herself through the improvement of defecation independence.

Keywords: Constipation, Ultrasound



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Poster

Malignant tumors and varicose veins around the ostomy

Kyoungmin Kwon, Kyuwon Baek
 Samsung Medical Center

#### Aim:

Malignant tumors around the peristomal area are rare, and secondary lesions after colorectal cancer surgery are the cause. Symptoms include bleeding, skin ulceration, lumps, and regular observation. The periportal varicose veins are caused by liver diseases such as portal hypertension, cirrhosis and sclerosing cholangitis, and the peripheral veins of the perilesions are loosened, causing minor irritation to the mucous membrane, mucous membrane and skin joints. To maintain skin integrity through prevention of damage to the skin around the wound, to protect against damage to protect the skin due to excretion, to effectively manage the intestinal tract, and to maintain the quality of life of the patient and family

# Method:

The guiding principle and the nursing intervention were to maintain the cleaning, bleeding management, effluent management, leakage prevention and pouching system

# Results / Discussion:

Continuous consultation between the department and the specialist and maintenance of the patient and the caregiver are possible

#### **Conclusion:**

It may be affected by mental and physical impact and personal, family, and social life due to the intestinal tract, so it is difficult to manage the intestinal tract itself, but more attention and support are needed due to perilymph complications. In order to reduce the burden, it is necessary to explain the management of the intestinal tract sufficiently and repeatedly to the subjects and their families. In order to manage patients who have been diagnosed with complication of malignant tumors and varicose veins around the periorbital area, specialists need to share skills, share relevant content, and expand evidence-based practices

Keywords: peristomal care, Malignant tumors

#### P-2

Management of enterocutaneous fistula: A Case study

Minkyung Kim, Kyuwon Baek
 Samsung Medical Center

#### Aim

Enterocutaneous fistula (ECFs) is an abnormal connection between small or large bowel and skin. Majority of fistula formation occurs following abdominal surgery and is related to tissue integrity and healing. Management of ECFs is important. Leakage from a fistula pouching system can be a distressing experience and the bowel contents can cause excoriation and damage of the skin. Therefore ECFs care is vital in preventing these problems. But complex ECFs is not easy to manage. One of the most difficult problems that a wound, ostomy, and continence (WOC) nurse can encounter is the management of ECFs. The aim of this study is to provide the management strategies for complex ECFs.

Method Clinical case study

# Results/Discussion

The patient was a 45-year-old male. He had an operation for Rectosigmoid junction cancer. After an operation, end ileostomy created and a complex ECFs formed. He underwent a second operation after the first operation because of small bowel perforation. He had twice undergone surgery and his fistula management had become more complex. The ECFs was complex with many openings. The fistula was located as well as the high level of output and the scars. Many attempts were made to pouch the fistula, all using different appliances, with little success. Finally, I used the "Troughing method" to apply pouching. Pouching was complex, however it was achieved with the help of an ileostomy pouch and a fistula pouch. After two weeks, the skin around the ECFs had improved. One month later, the fistula had reduced in size and the skin around the ECFs has remained healthy.

#### Conclusion:

In this case report I describe a patient with complex ECFs. "Troughing method" pouching system was effective in complex ECFs. As a result, effective pouching system reduces skin problem and enhances patient comfort, quality of life and healing

Keywords: Enterocutaneous fistula, case study

Effects of Social Support and Self-efficacy on Psychosocial Adjustment of Patients with ostomy using survival analysis in KOREA

○ Heui Yeoung Kim<sup>1)</sup>, Keum Hee Na<sup>2)</sup>, Jung Ho Kim<sup>2)</sup>, Ki Noh Kang<sup>2)</sup>, Soo Yang Na<sup>3)</sup>, Bok Hee Han<sup>3)</sup>

Department of Nursing, Dong-A University Hospital<sup>1)</sup>, Department of Nursing, Masan University<sup>2)</sup>, College of Nursing Science, Kyung Hee University<sup>3)</sup>

1. Purpose The present study aims to test the factors that may influence and aid psychosocial adjustment of patients with ostomy and to provide basic data for development of programs on self-management of intestinal stomas and psychosocial adjustment. 2. Methods Among patients with ostomy who visit one university hospital located in B City, five chapters of Korean Ostomy Association, and one ostomy patient group in S City, 150 patients with ostomy that understood the purpose of the study and voluntarily consented to participate were recruited between December 1, 2017, and March 26, 2018, and completed self-report questionnaires. Excluding 25 participants' data with insincere responses, the data collected from a total of 125 participants were used for the study. 3. Results The data were analyzed on SPSS IBM 22.0, and social support and self-efficacy, which influence psychosocial adjustment of patients with ostomy, were analyzed through Cox's regression. Regarding factors that influence the psychosocial adjustment group after statistical adjustment for time, the following subtypes of social support were found to influence the patients' adjustment; the patients' psychosocial adjustment increased by 0.4 when the level of support from medical staff increased by 1 (Exp (B) =1.04, p=.007), and adjustment decreased by 0.3 when the level of support from family increased by 1 (Exp (B) =0.97, p<.001). Time-dependent Cox's regression was performed for statistical verification while taking into account the correlation between the duration of ostomy care and support from medical staff, and the influence of support from medical staff was found to persist with time. 4. Conclusion This study found that support from medical staff is a time-dependent variable for the psychosocial adjustment group of patients with ostomy. This indicates that the level of support from medical staff should stay consistent at the level seen immediately after the surgery for psychosocial adjustment of patients with ostomy.

**Keywords:** social support, self-efficacy, psychosocial adjustment of Patients with ostomy

#### P-4

Using Skin Bundles Care to Reduce the Pressure Ulcers Rate in Respiratory Care Center

○ CHEN Chun-Ling

Changhua Christian Hospital

Background The ventilator-dependent patients in the respiratory care center (RCC), the pressure ulcers rate was 0.78% in 2017 which was higher than the average pressure ulcers rate of 0.41% in the hospital. The high incidence rate of pressure ulcers not only causes additional cost and increased workload of the nurses, but also prolongs the length of hospital stay, impairs the quality of care, and affects family satisfaction. It is committed to improve this issue. Aim To reduce the pressure ulcers rate in the respiratory care center. Methods The following measures of skin bundles care model were adopted, including: 1. Improved personnel awareness education; 2. Settling of skin assessment criteria; 3. Professional wound care; 4. Use of preventive foam dressings; 5. Improved turn-over aids; 6. Nutrition tracking and discussion. Results In 2017, 40 patients developed pressure ulcers in the RCC of our hospital. The pressure ulcers rate was 0.78%, the number of crushed parts at the coccx/sacrum was 18, with an incidence rate of 0.35% (p=0.02768). After the intervention of skin bundles care, the total number of pressure ulcers from January to August, 2018, was 16 with an incidence of 0.41%. Of the 16 patients, 3 were crushed at the coccx/sacrum and the incidence rate was 0.08% (p=0.007603). Conclusion The ventilator-dependent patients in the RCC have increased disease severity. The causes of their high risk for pressure ulcers development include impaired mobility, bed ridden, urinary and fecal incontinence, malnutrition, diabetes, poor peripheral blood circulation. These factors will increase the pressure ulcers rate and decrease the wound healing. By adopting a standardized care model and implementing a skin bundle care model, it is possible to reduce the incidence of pressure ulcers rate and improve the quality of patient care.

**Keywords:** Ventilator, pressure ulcer, skin bundle care

Strategy for preventing and Managing Percutaneous Transhepatic Cholangio - Drainage (PTCD) tube - Related Complications

#### O SHUCHEN HUANG

Nursing department of E-DA Hospital

Purpose The management of percutaneous transhepatic cholangio-drainage (PTCD) tube that are not well stabilized and leak effluent around insertion site present challenges to the nurse. It can lead to maceration and excoriation of peritubular skin. It also caused patient discomfort and fluid losses which cannot be measurable.

Method WOC nurse was consulted when 2 patients with PTCD tube experienced leakage, mild skin erosion and pain. Nursing goals were healing the skin and protecting from additional breakdown, fixing the tube, quantifying the amount of effluent drainage. A 2-piece ostomy pouch were applied over the drain tube. Ostomy wafer was used for tube fixing and protecting the surrounding skin. Ostomy pouch was used for collecting and measuring drainage.

Result The 2 patients who had been used this strategy has been more comfortable. They would not feel the PTCD tube movement and the peripheral skin was protected from caustic effluent

Conclusion Tube care is a especially challenge when the tube is not be fixed adequately which resulting leakage and damage to the surrounding skin. The technique could secure the tube, protect the surrounding skin, collect and measure bile leakage accurately.

**Keywords:** Percutaneous Transhepatic Cholangio-Drainage (PTCD), Leakage, 2-piece ostomy pouch

#### P-6

Postoperative care for a patient with ileostomy due to laparoscopy-assisted vaginal hysterectomy and intestinal obstruction

# $\bigcirc$ Wu Tzu-Ling<sup>1,2)</sup>

National Taipei University of Nursing and Health  $Sciences^{1)}$ ,

Wound Care Center, Department of Nursing, National Taiwan University  $\operatorname{Hospital}^{2)}$ 

A 39 year old woman with anemia, dysmenorrhea, and menorrhagia in association with adenomyosis underwent laparoscopy – assisted vaginal hysterectomy in November 2017. By March 2018, her abdominal infection was improved and stoma closure was performed. However, two weeks after stoma closure, intestinal obstruction was still present and the ileostomy was left in place.

We used silver - containing hydrofiber dressing to treat the postoperative sutured wound. Due to the depression in the surrounding skin, we protected the skin from infiltration with a convex base plate, barrier film, a skin barrier, and a belt. As a result, the wound healed as expected, without any infection. The convex base plate was changedevery 5 to 7 days, and no ulcers were observed around the stoma. Previous studies indicated that chief complaints during postoperative care are more frequent in patients with anileostomy than in those with a colostomy. The following postsurgical care guidelines were provided 1. skin protection 2. effective and timely emptying of ileostomy pouches 3. dietary intake 4. fluid and electrolyte balance 5. improve the quality of life.

Unlike a colostomy, an ileostomy can cause postoperative complications that are specific to stoma characteristics. Intestinal obstruction, skin irritation around the stoma and imbalance of electrolytes are common. In our case, the patient experienced intestinal obstruction due to improper eating habits, with associated scar tissue formationand depression of skin around the stoma, and high – energy household activities led to a high level of anxiety and stress.

Through evaluation, the use of appropriate ileostomy tools, professional counseling, involvement in a patientsupport group, and discussion on how to manage postoperative care, the patient gradually resumed a normal life.

Keywords: ileostomy, complications, care guidelines

Nursing experience in a breast cancer end stage case with fungating wounds with life quality

○ Ling-syuan Wei<sup>1,2)</sup>

Nurse Practitioner, Surgical Intensive Care Unit, Sijhih Cathay General  $\mathsf{Hospital}^{1)}$ ,

Master student, Department of Nursing, Taipei Medical University<sup>2)</sup>

Introduction: This is a 52-year-old women with first diagnosis of breast cancer with lung, liver, spine, skin metastasis in 2017. Due to her breast of left had multiple nodule and ugly ulceration, massive dirty discharge was noted that she unwilling medication treatment. Purpose: The author provided comfort care and evidence base in a breast cancer with multiple metastasis case of fungating wounds care for decreased odor and massive discharge problems, also promoted patient's comfortable with dignity face to cancer end-stage life. Methods: The fungating wounds produced odor and oozing of discharge create change of body image, lower selfrespect, life of inconvenient and social disorder problems. The author application Evidence-Based Medicine of external agents for reduced odor and oozing first for wound care. The second, the accompany, expression of encourage and comfort care skills such as music therapy, massage, deep breathing skill, meditation, pain control for relaxing of physical and mental discomfort in the patient that improved the patient's quality of life and effectively executing end-of-life care. Results: The patient identity and learning self-care of fungating wounds care skills before home and improved discomfortable heavy odor and discharge oozing. Although cannot be decreased mortality and promotion wound healed that patients and families were satisfied for better life quality at end stage. Conclusion: Nurses should well know end-stage cancer care skills and improve end-of-life care for provide patient individualized and centered care, ensuring the highest quality of patient care while end-stage. Respect the patient's self-willingness and give appropriate assistance without criticizing their values is important.

**Keywords:** Antibacterial dressings, Comfort Nursing, Fungating wounds

#### P-8

Nursing experience of a patient applied a movable base as wound treatment with peristomal abscess

○ Feng-Hsiang chou, Jui-Pin Lin, chyong-yau Cherng

Taiwan Taipei Veterans General Hospital

Background/Aim: About 59% of patients will develop stoma-related complications within two weeks after discharge. This case of Peristomal Abscess. Originally the patient used antibacterial dressing to fill up the wound and changed the stoma bag every three days. However, the wound deteriorated and needed to be hospitalized, and then changed into movable solid skin barrier, which was easier for changing the dressing every day and controlling the infection. In the end, the patient smoothly undergone the surgery of closure the ileostomy and discharged from hospital and returned home. Method: Skin protection is the cornerstone. Ostomy leakage Often corroded by humid environments and alkaline materials, which is prone to cause moisture-associated skin damage, MASD. Therefore, thees interventions were given: Peristomal skin Cleaning protection change movable solid skin barrier. These were easy to replace wound dressing, and also reduce costs. Result: By changing the way of dressing and changing the solid skin barriers the same time,9 o'clock position the size of ulcer wound was began to improve Undermining 1cm Squeezing out pus changes to blood Redness and pain the peristomal skin began to improve and was completely healed in a week. Conclusion: Changing into "movable solid skin barrier", It is convenient to change the dressing and to control the infection every day, The peristomal skin began to improve and was completely healed in a week and finally the patient undergone the closure surgery and successfully discharged from hospital. From taking care this patient, as a professional ET nurse we learn how to select different dressing and appropriate ostomy products to successful management the peristomal complication.

**Keywords:** peristomal abscess, movable solid skin barrier, wound

A case study of Medical Shared Decision Making in patients with stoma: Appliance Selection and Replacement

O Kai ling Su

Tainan Municipal Hospital

In 2/3 of the colorectal cancer post-operative management requires colostomy insertion for life, as well as learning daily management and re-adapt to structural changes of their bodies (Yang, Lin. 2016). Hence, it is essential to understand each individual case in their daily needs, skills learning in order to supply them with options which they can consider, reaching medical shared decision making and progressively guiding how to selfcare toward patients with stoma. The earlier they adapt to the new changes, the earlier they are able to return to normal living. A 65 year old female diagnosed with colon perforation with necrotizing inflammation and peritonitis, left end ileostomy at the height of 1cm. Yellow watery stool discharged, skin redness around and broken skin (left, 12-3 o'clock direction) was observed. SACS tool evaluation showed: L2, T1. Her husband was the main caregiver. A thin layer of membrane powder was sprayed on the broken skin area, applied on a flat cut-to-fit of Durahesive wafer and strengthened with ostomy belt to support, and be replaced once every 6 days. Mainly focuses on the techniques of the caregiver when change the Durahesive wafer. The husband was able to follow the steps and fulfill the requirements independently without hesitation. The broken skin had healed and no more redness or skin lesions were observed. Understanding the case in terms of lifestyle and family relationship, in addition to application of advanced appliance and simple operating skills to assist self-care shall enhance confidence in management as well as strengthen family bonding.

**Keywords:** colorectal cancer, colon perforation, medical shared decision making

# P-10

Randomized comparative clinical trial of pursestring approximation and primary closure with a drain for stoma reversal surgery

○ Kunihiko Amano<sup>1)</sup>, Kensuke Kumamoto<sup>1,2)</sup>, Jun Sobajima<sup>1)</sup>, Satoshi Hatano<sup>1)</sup>, Noriyasu Chika<sup>1)</sup>, Yusuke Tajima<sup>1)</sup>, Keiichiro Ishibashi<sup>1)</sup>, Erito Mochiki<sup>1)</sup>, Hideyuki Ishida<sup>1)</sup>

Saitama Medical University, Department of Digestive Tract and General Surgery<sup>1)</sup>, Kagawa University, Department of Gastroenterological Surgery<sup>2)</sup>

<Purpose> Stoma reversal is associated with an increased risk of surgical site infection (SSI). Purse-string approximation (PSA) has been reported as an attractive alternative to conventional primary wound closure for stoma reversal, however, the efficacy of PSA is still under debate. <Methods> Patients undergoing elective stoma reversal were randomized to undergo PSA or primary closure with a drain (PCD). All patients received preoperative bowel cleansing and antimicrobial prophylaxis. The primary endpoint was the incidence of wound healing at the stoma site at 30 days after surgery. The secondary endpoint was the 30-day SSI rate after surgery. <Results> A total of 159 patients (PCD group, n = 79; PSA group, n = 80) were eligible for this study. The incidence of wound healing at the stoma site was 92.4% in the PCD group and 62.5% in the PSA group (difference [95% confidence interval]: -29.9% [-42.9 to -16.9%]). In regard to the secondary endpoint, the 30-day SSI rate at the stoma site was 8.9% in the PCD group and 5.0% in the PSA group (P = 0.35). <conclusions> These results suggest that PCD still remains the standard procedure for stoma reversal surgery.

**Keywords:** stoma reversal, primary closure, pursestring approximation

Nursing Experience of Using Convex Barrier during Early Stage of Ostomy Surgery of the Bowel for Bowel Obstruction

#### O WEN CHU YA

Taipei Tzu Chi Hospital

The stomas created via ostomy surgery of the bowel to treat bowel obstruction are often poor quality. Stomas that located in the depression of the skin or bad stoma open position are commonly seen. I would like to share the knowledge of how to apply a convex barrier in the postoperative period to prevent leakage and to protect the skin around the stroma, so as to avoid the development of skin complications and resolve stoma problems at an early stage.

**Keywords:** Convex Barrier, stoma is level to the abdomen, stoma is situated at a depression of the skin

# P-12

Results of temporary loop type ileum ostomy in our hospital

○ Takahiro Wada, Toru Sakurai, Masanobu Enomoto, Yuichi Nagakawa, Kenji Katsumata, Akihiko Tsuchida

Tokyo Medical University Hospital digestive and pediatric surgery

I will show the results of temporary colostomy in our hospital. Method We examined a case in which a temporary colostomy surgery which took effect at our hospital from 1 January 2015 to 31 December 2017 was performed, result The number of cases was 27 cases, and all were loop type colorectomy. Five men and two females. Average 67.3 years old. The primary disease was the most common in 22 cases of rectal cancer. The average period from the colostomy construction to the closure was 4.7 months. Two cases resulted in complications that seemed to be caused by temporary colostomy. In 6 cases, it was not possible to perform an ostomy occlusion due to local recurrence etc.

**Keywords:** temporary colostomy, colostomy, loop type colorectomy

The Experience of Caring for a Colostomy Patient with Retracted Stoma and High-output Excretion

Tzuyi Tsai, Tzuting Weng, Huaching Lin
 Division of Colorectal Surgery, Department of Surgery,
 Cheng Hsin General Hospital

Purpose: A 50-year-old woman who in the fourth stage of rectal cancer underwent loop T-colostomy before receiving asecond targeted therapy experienced high-output after using Vectibix. She had a retracted stoma, which was flush with theskin, and the peristomal skin was wrinkled, causing frequent leakage of the pouching system. A two-piece convex flange wasused to correct the poor stoma structure, strengthening the stability of the stoma bag and preventing the occurrence ofirritant dermatitis to improved the patient's quality of life. Method: 1. Clean the peristomal skin with water 2. Protect peristomal skin by applying a pain-free protective seal 3. Attach a firm protective skin barrier and some protective paste at 3 and 9 o'clock to fill in skin folds 4. Apply a two-piece convex flange and wear a stoma belt to enhance the stability of the pouching system 5. Record ostomy output daily and monitor fluids and electrolyte balance. Results: The patient experienced highoutput excretion after receiving the second targeted therapy. The output was approximately 1500ml/ day. Two-piece standard flanges were applied at first, but as they required changing 1-2times a day due to leakage, two-piece convex flanges were used instead to fix the problem of poor ostomy structure, and withthe ues of the ostomy belt, the pouching system can remain stable for up to 3days. There had been no leakage before changing the flange, and the surrounding skun was intact. Conclusion: Retracted and high-output stoma affects the stability of the pouching system and increases the difficulty og managing it, which may easily cause irritant dermatitis around the stoma. In addition, frequent leakage affects the patients'mood, sleep quality and social activities. By applying professional skills to choose the appropriate stoma flanges for patients, ET nurses could help lower patients' cost and improve patients' quality of life.

**Keywords:** convex flange, retracted stoma, highoutput excretion

# P-14

Review The Experience Of Enterostomy Type Care Sharing In Taiwan CMUH

O SHU-JUNG WONG, TZU-LIANG CHEN, TAO-WEI KE, YA-HSI WANG

Department of Colorectal Surgery, Ostomy Therapy, China Medical University Hospital

Purpose: Review the types and common complications of the stoma of the Chinese Medical University Hospital (CMUH) due to gastrointestinal surgery. Method: From August 2015 to July 2018, total 751 patients. Received a ostomy surgery in CMUH Taiwan. The stoma type is divided into two types: permanent and temporary stoma. Statistics related skin complications. Result: Among the 751 patients were admitted according to the stoma type. (455 Male, 296 female). There were 166 patients permanent stoma and 585 patients temporary stoma. The total number of patients with ileostomy was 375 patients. Common complications of the skin are early and late stage of irritant dermatitis, early stage of allergic dermatitis and early stage of hyperplasia. Early stage of irritant dermatitis is the most common accounted for 68%. Conclusion: The formation of postoperative stoma is a major change in the appearance of the body. It is a necessary way to treat the disease and the continuation of life. I hope that in the future, it will be more effective to teach ostomy care to reduce the incidence of skin and other comorbidities, improve the patient's condition and quality of life.

**Keywords:** ostomy, complications, irritant dermatitis

A case of delayed healing of ulcers adjacent to a stoma during anticancer drug treatment including Bevacizumab

○ Kaori Inba¹¹, Tomomi Yasuda²¹, Toshiaki Umemura²¹, Mizuho Ii²¹, Takashi Shigeno²)

Toyama Red Cross Hospital<sup>1)</sup>, Dept. of Nursing, Toyama Univ.<sup>2)</sup>

Purpose: We report a patient who developed repeated ulcers in skin adjacent to a stoma during anticancer drug treatment that included Bevacizumab.

Ethics: This study was approved by the nursing ethics committee of the author's hospital.

Case: The patient was an 80-year-old woman who underwent transverse colostomy with double orifices for rectal cancer with multiple hepatic metastases. Postoperatively, FOLFOX + Bevacizumab was administered for 11 courses. A change was then made to sLV5FU2 + Bevacizumab from the 12th course due to the emergence of peripheral nerve damage. Around this time a parastomal hernia was seen and a small ulcer developed in the skin adjacent to the stoma. The ulcer was enlarged at the completion of the 21st course, and Bevacizumab was discontinued. Treatment was continued until the 24th course. Epithelialization of the ulcers was progressing and so IRIS + Bevacizumab was started, but the patient was hospitalized for febrile neutropenia and drug-induced mucosal damage. At the time of hospitalization, the ulcer worsened and a new ulcer that formed a pocket and was accompanied by pain occurred.

Result: A convex barrier ostomy system was used after the colostomy, but a change to a flat barrier ostomy system was considered to avoid pressure on the ulcers. However, there was leakage of feces from the ostomy appliance, and the use of a onepiece convex barrier ostomy system was continued. Wounds were washed every day and antibiotic ointment applied. Both of the ulcers became smaller. Enlargement of the liver tumors was seen on a CT after admission, and there was a rush to restart treatment. Upon consideration by the internist and dermatologist, a plan was set to restart treatment with combination Bevacizumab and discontinue it if the wounds worsened. Epithelialization of the ulcers was complete two months after the restart of treatment.

**Keywords:** Bevacizumab, Delayed healing ulcers, Skin adjacent to stoma

# P-16

Comparative outcomes between palliative ileostomy and colostomy in patients with malignant large bowel obstruction

Yasuo Nagashima, Kimihiko Funahashi,
 Mitsunori Ushigome, Satoru Kagami,
 Tomoaki Kaneko, Yu Yoshino, Takamaru Koda,
 Junichi Koike, Akiharu Kurihara

Department of General and Gastroenterological Surgery, Toho University Omori Medical Center

Objectives Creation of a palliative stoma should be considered in patients at high risk of colonic metallic stent failure. However, it is unclear whether ileostomy or colostomy is superior for palliation. This study compared short-term outcomes between palliative ileostomy and colostomy. Methods We identified 82 patients with malignant large bowel obstruction (MLBO) caused by various advanced cancers between January 2005 and December 2016, and compared short-term outcomes between the ileostomy group (n = 33) and the colostomy group (n = 49). Results For all 82 patients clinical success was obtained. Three patients with ileostomy died within 30 days of ostomy formation. The ileostomy group had statistically differences in the median of operative time (113 vs. 129 minutes, p = 0.045) and in the blood loss (8 vs. 40 g, p = 0.037) in comparison to the colostomy group. No statistically differences were observed in the surgical complications (30.3 vs. 38.8%, p = 0.431), in the median period to oral intake (3 vs. 4 days, p = 0.335) and in the hospital stay after surgery (32 vs. 27 days, p = 0.509) between the two groups. Overall stoma-related complications occurred in 27 (32.9%) patients. Stoma-related complications occurred more frequently in the ileostomy group (16/33 vs. 11/49 patients, p = 0.014). High output stoma (6 patients) and irritation (5 patients) occurred more frequently in the ileostomy group. Conclusions Palliative colostomy is superior to ileostomy due to less stoma-related complications. When ileostomy is required, aggressive interventions for high output stomas should be implemented.

Keywords: palliative stoma, colostomy, ileostomy

Experience in management of two proximal transverse colostomy with deep and wide mucocutaneous separation

# O PEI-JUNG CHI

Enterostomal therapy room, Division of Colorectal Surgery, Chang-Hua Christian Hospital

# Purpose

Prevent further complications after mucocutaneous separation. Avoid invasive procedure such as surgical intervention. Increase patient comfort.

#### Methods

The separation fill with hydrofiber dressing and stoma ring seals. Convex ostomy pouch and belt were selected.

#### Results

The mucocutaneous separation completely healed after 3 weeks and 5 weeks without further complications.

#### Conclusion

Conservative treatment in deep and wide mucocutaneous separation are effective except re-suture or re-surgery and can prevent further complications.

**Keywords:** stoma, complication, mucocutaneous separation

# P-18

**CANCELLED** 

A 63-year-old immunocompromised male with incontinence associated dermatitis complicated with secondary herpes virus infection care experience

O Yu-Chang Lin

Nurse Practitioner, Medical intensive Care Unit, Sijhih Cathy General Hospital

Purpose: A 67 year -old obesity male was diagnosed with pneumonia complicated with acute respiratory failure and admitted to ICU for treatment, who also had medical history of type 2 diabetes mellitus with chronic renal failure and gout. After antibiotic and colchicine treatment, which had led to diarrhea and incontinence associated dermatitis. Then diarrhea had controlled by treatment gradually, but skin lesion still worsening and wound assessment found multiple erosions and ulcerations over erythematous base on the scrotum and perineum. Due to patient's medical history and immunocompromise status, differential diagnosis as below: 1. incontinence associated dermatitis, 2. fungus infection, 3. secondary herpes viral infection. Methods: Being a clinic nurse practitioner, I tried to verify the facts with evidence-based medicine literature reviews wound assessment results. After consulted dermatologist, the intervention are: 1. mix Mycomb and Sulfasil cream external TID topical use. 2. Reduce the frequency of diarrhea and chronically contacting with stool and urine. 3. Viral swab culture/isolation for suspected herpes viral infection. 4. Barrier cream application with a thick layer of Vaseline or Zinc Oxide. Results: Groin condition improved after diarrhea stopped. The isolation and identification of virus from multiple erythematous erosions and ulcerations over scrotum and perineum showed HSV type 2 was the main cause, and treated with anti-virus and acyclovir cream TID topical. Conclusion: Skin herpes virus would cause typical cluster blisters, and herpes simplex could also result a single blisters, papules, erythema or small wounds with ulcerations. Due to ICU patients with bed ridden and immunocompromised, if incontinence associated dermatitis cannot be effectively controlled after actively correcting diarrhea. Secondary bacterial/fungus/herpes virus infection should be included in the differential diagnosis to provide correctly treatment.

**Keywords:** incontinence associated dermatitis, secondary herpes virus infection

# P-20

Evaluating certificated wound ostomy continence nurses education activities in the southern Osaka region

○ Chie Furukawa<sup>1)</sup>, Yuko Kato<sup>2)</sup>, Mika Sato<sup>2)</sup>, Emiko Yamamoto<sup>3)</sup>, Shinichiro Morimoto<sup>3)</sup>, Fujiko Yamaguchi<sup>4)</sup>, Fumie Yamamoto<sup>5)</sup>, Ayumi Koga<sup>6)</sup>, Mutsumi Fukunaga<sup>7)</sup>

Sanyo Gakuen University<sup>1)</sup>, Kishiwada City Hospital<sup>2)</sup>, Sakai City Hospital<sup>3)</sup>, PL Hospital<sup>4)</sup>, Seikeikai Hospital<sup>5)</sup>, NTT Osaka Hospital<sup>6)</sup>, Hyogo Prefectual Nishinomiya Hospital<sup>7)</sup>

Purpose this study is to evaluate certificated wound ostomy continence nurses WOCN education activities in Southern Osaka regionMethods and Results Southern Osaka wound ostomy continence care study group SOWOCN has been working since 2010 and consists of one surgeon 18 WOCN and three stoma agent sales persons The SOWOCN holds three to four seminars a year and the theme is decided reflecting the participants desires for examples basic ostomy care difficult management ostomy care stoma care at home and stoma care for caregivers working in nursing facilities So far more than 500 people have participated in the seminar Most of participants say the SOWOCN plays an important role in care on wound ostomy continence care in the region Discussion and Conclusion We believe that the SOWOCN contributes to the improvement of wound ostomy continence care quality in this region The SOWOCN values dialogue with medical staff in the region The SOWOCN would like to continue working to solve the matters about the wound ostomy continence care of local medical staff.

**Keywords:** Ostomy, Education Activities, community

A Qualitative study on the Decision-making process for Wound Ostomy and Continence Nurses in relation to stoma outpatients

 $\bigcirc$  Yoshie Takaki $^{1)}$ , Jun Takahashi $^{2)}$ 

Fukuseikai Hospital<sup>1)</sup>, Chiba Cancer Center<sup>2)</sup>

#### Purpose

To elucidate the action and the information associated with the decision-making process of Wound Ostomy and Continence Nurses (WOCN) at stoma clinic.

#### Method

The study subjects were ten WOCN in relation to stoma outpatients. The data was collected though participant-observation and interviews with ten WOCN, and were analyzed by inductive and qualitative methods to categorize from the viewpoint of the information.

#### Results

We observed that the decision-making actions were direct, specify, evaluate, and propose through participant-observation. The information associated with the decision-making process was categorized into seven types: management of stoma care; teaching stoma-management skill; experience and role of WOCN; function of stoma clinic; personal stoma care by ostomate; personal everyday-life experience by ostomate; and from cognition through visital and touchable perception.

# Discussion

As a result, it was shown that WOCN responds to ostomate holders by respecting the intention of ostomate holders, rather than unilaterally implementing stoma care. In addition, WOCN utilizes information on the specialized field stoma management, in order to improve the living situation of individual stoma holders, and WOCN uses information related to stoma holders and their lives with stoma It was thought that this information served as an indicator to judge the practice of care. Conclusions

The study suggests that four actions of WOCN towards the behavior of ostomates. And WOCN in stoma clinic make use of the information of seven types to manage stoma care and to improve the life of ostomate.

Keywords: Decision-making, WOCN, stoma care

#### P-22

Use of Care Bundles to Improve Moisture-Associated Skin Damage in Skin Folds in Critically Ill Patients

○ Chia-Chi Fan<sup>1,2)</sup>

Nurse, Medical intensive Care Unit, Sijhih Cathay General Hospital<sup>1)</sup>.

Master student, Dept. of Nursing, College of Medicine, Fu-Jen Catholic University<sup>2)</sup>

Objectives An 87-year-old male patient under longterm urinary catheterization with constipation was transferred to our intensive care unit (ICU) due to acute exacerbation of chronic obstructive pulmonary disease. During his stay in the ICU, the patient was bedridden and was required to wear adult diapers, which resulted in skin folds in the perineal area being over-exposed to sweat and bacteria. Redness and breakdown of the skin in the fold areas around the scrotum were noted, which was diagnosed as intertriginous dermatitis of the skin folds. The Face Pain Scale of the patient was 4, and intervention measures were introduced. MethodsThe ABCDE bundle was implemented in the care of the patient, which included: (A) Ventilation: checking the diaper every two hours; (B) Barrier: covering the fold areas of the skin around the scrotum with cream and gauze dressings; (C) Cleaning: use of neutral skin-cleansing agents; (D) Diapers: use of diapers with high breathability and absorbency; (E) Education: provision of prevention and intervention measures. Results After implementing the abovedescribed care measures, redness and skin breakdown were eliminated during hospitalization in the ICU, and the Face Pain Scale was reduced from 4 to 2. Conclusions Both incontinenceassociated dermatitis and intertriginous dermatitis are moisture-associated skin damage and are often difficult to distinguish from each other. Skin redness and wound exudate are clinical signs of both types of moisture-associated skin damage, and if not treated in time, they may develop into skin breakdown and fungal infection. Therefore, early intervention using care bundles can not only reduce skin damage and patient's pain level, but can also lower hospital costs and enhance trust within the healthcare provider-patient relationship.

**Keywords:** intertriginous dermatitis, Care Bundles, moisture-associated skin damage

Care of moisture-associated skin damage in the tracheostomy area

O Mei-Yan Peng

Nurse Practitioner, Medical Intensive Care Unit, Sijhih Cathay General Hospital

Objectives: An 88-year-old man who underwent a tracheostomy several years ago due to respiratory failure following a stroke was admitted to our intensive care unit owing to respiratory failure. Redness and swelling of the skin around the tracheostomy area were noted, inferring to be associated with a large trachea opening and the skin having been in contact with sputum for too long. The Face Pain Scale (FPS) of the patient was up to 8, and intervention measures were thus taken to alleviate discomfort and negate further damage to the patient. Methods: 1. The skin lesion was assessed using the SACS TM Instrument and was classified as L3 TV; LX TII, III. 2. Before administering wound care, sputum drawing was performed. 3. A neutral cleaning solution was used to clean the trachea opening area. 4. Saline was used to clean the skin. 5. Durable barrier cream was applied to protect the area at risk. 6. A piece of gauze large enough to cover more than the trachea opening was used. 7. Foam was used to cover the damaged skin. 8. Moist gauze dressings were replaced frequently. Results: After the abovementioned intervention measures had been put in place to care for the trachea opening area, the patient's skin redness, wound exudate and tingling were significantly alleviated. The SACS Instrument score was reduced to L1 TV; LX TII, III, and the FPS reduced from 8 to 4. Conclusion: Moisture can increase skin friction, resulting in damage and infection, and increasing the need for manpower and medical resources. Educating caregivers to improve their skills in caring for trachea openings and training nursing personnel to assess moisture-associated skin damage will enable the introduction of intervention measures immediately when necessary. This will result in increased comfort of the patient and improve the quality of wound care.

**Keywords:** Moisture-associated skin damage, Tracheostomy Care, Studio Alterazioni Cutanee Stomali

#### P-24

The effectiveness of antibacterial silver dressings for ulcers around the stoma

○ Yu Chih Tseng<sup>1)</sup>, Chin-Hao Hsu<sup>1,2)</sup>, Chih-Hsuan Chang-Chien<sup>1)</sup>, Sam Yang<sup>1)</sup>

Ditmanson Medical Foundation Chia-Yi Christian Hospital Division of Plastic Surgery<sup>1)</sup>, Wound care center2<sup>2)</sup>

Background: The case is a 60 years old male with rectal cancer cT3N2bM1 stage IVB, the stoma is located on his upper abdomen, and is still undergoing chemotherapy process. Because of the discovery of the wound near stoma (measured by SACSTM) with L3, TIII erosion with much secretions. Besides, leakage often happen due to the secretions in the ulcer and the wafer can not be attached firmly. The erosion also affect patient's quality of sleep due to pain and discomfort. OBJECTIVE: To use dressings to promote and accelerate the healing of ulcerated skin around the stoma and to reduce the effect of exudate on the stoma wafer to enhance patient's comfort. Method: To place Aquacel Ag on the ulcer near stoma, and use it with stomahesive skin barrier to block the exudate. Then replace the dressing every 3-4 days. RESULTS: After use Aquacel Ag dressing, the ulcer condition improved significantly, and the ulcer was almost completely healed in about 20 days and the patient's comfort was greatly improved with better sleep quality. Conclusion: The ET nurse assesses the peristoma skin before the wafer applied can accelerate the healing of the ulcer wound and improving patient comfort.

Keywords: stoma, ulcer wound, antibacterial

Differences in the stoma care provided and the awareness and level of understanding of stoma care among care service facilities and offices

 Takashi Shigeno, Mizuho Ii, Toshiaki Umemura, Tomomi Yasuda

University of Toyama

#### Purpose

The purpose of this study was to clarify the differences among facilities in the stoma care provided and the respective awareness and level of understanding of stoma care in nursing staff and care staff who work in these care service facilities and offices.

#### Methods

Care service facilities and offices in Toyama Prefecture were randomly selected, and a questionnaire survey was conducted of nursing staff and care staff working at these care services. Fisher's exact probability test was used to investigate differences between nursing staff and care staff in the stoma care provided, attitudes toward stoma care, and level of understanding of stoma care in each type of facility. This study was approved by the ethics committee of the author's institution.

#### Results

A total of 314 valid responses were received. The results of the investigation of differences in the stoma care provided and attitudes toward stoma care by type of facility between nursing staff and care staff showed significant differences in experience of consultation from ostomates' families and experience of participating in training sessions on stoma care among nursing staff, and in experience of providing stoma care, experience of changing ostomy appliances, and desire to attend stoma care training sessions among care staff (p<0.05). Similarly, the results of the investigation of level of understanding of stoma care showed differences in the items for which significant differences were seen in the level of understanding between nursing staff and care staff. Overall, the results showed lower levels of understanding among care staff.

#### Conclusion

As opportunities to provide stoma care are expected to increase in the future, it will be necessary to raise awareness and level of understanding with regard to stoma care and to provide places for learning about stoma care, especially for care staff who have few such opportunities.

Keywords: Stoma care, Home nursing, Care facility

# P-26

A case of colostomy which was performed in left lumbar region for huge sacral chordoma patient who could not take supine potion

O Yuto Kamioka<sup>1)</sup>, Hiroyuki Saeki<sup>1)</sup>, Eri Kikuchi<sup>2)</sup>

Department of Surgery, Yokohama Minami Kyosai Hospital<sup>1)</sup>,

Department of Nusing, Yokohama Minami Kyosai  $\operatorname{Hospital}^{2)}$ 

A 61-year-old man was admitted to a hospital with 6 months history of gluteal pain and gait disturbance. He has been diagnosed with sacral chordoma 10 years ago, which has invaded into pelvic organs, and been received radiation therapy. A computed tomography showed the huge tumor invaded into pelvic organs and gluteal region, and pulmonary metastasis. Becoming unable to take supine position because of gluteal pain, he was admitted to our palliative care unit 2 months ago. He developed a urinary tract infection due to a rectovesical fistula and a left hydronephrosis. The infection was not controlled even after percutaneous nephrostomy. Therefore, we performed colostomy using descending colon at left lumbar region in order to manage it in prone position. After operation, the infection was lightened, and there were no significant stoma troubles. It is generally said that optimal stoma site is within the rectus muscle. However, depending on the condition of the patient, it may useful to selectively make it in the lumbar region.

**Keywords:** colostomy, lumbar region, sacral chordoma

Improvement in the skin pressure sores on the patients' faces

O LIN Jia-Rong, CHEN Chun-Ling

Changhua Christian Hospital

Background: This unit is a subacute respiratory care unit. The patients admitted are those who need long-term respirator care. Patients are often restricted during the use of endotracheal intubation or non-invasive positive pressure breathing apparatus. Because of poor or inproper protection of the skin, the rate of pressure sores over the face during the period from January to March 2018 was 0.41%. Purpose: To reduce the rate of pressure sores over the face by changing the way of care and creativity. Intervention measures 1. Talor the foam dressing into a mask shape / put the foam dressing onto the cheeks in endotracheal tube users. 2. Inspect facial skin integrity every hour. 3. Fix the mask strap or the endotracheal tube strap on both sides of the patient's ears by using the velcro. Results: The rate of pressure sores over the face during the period from April to August, 2018, was 0.08%. Conclusion: Foam dressing can be used to reduce the rate of facial pressure sores, and to improve the quality of skin care in the respiratory care unit.

Keywords: faces, pressure sores

# P-28

Improvement of Incontinence-associated Dermatitis

O SHIUE Huei-Siang, CHEN Chun-Ling

Changhua Christian Hospital

Background: This unit is a moderate to severe intensive care unit. Patients with high disease severity and lack of self-care ability need special care. Antibiotic use is common due to disease, and the use of antibiotics can bring about the occurrence of Clostridium difficile infection (CDI). The incidence of CDI rose from 0% in 2017 to 25% in January-June, 2018. The use of antibiotics also increased the incidence of incontinenceassociated dermatitis (IAD) from 0.08% in 2017 to 0.17% in January-June, 2018. Objective: To improve IAD due to diarrhea by standardizing skin care procedures and by protecting product use. Intervention measures: 1. Early assessment and early diagnosis of CDI. 2. Set a care model to prevent dermatitis. 3. Establish a skin care process to improve IAD. 4. Arranging on-the-job education to increase consensus on care. Results: Through on-the-job education, standardization of skin care processes and protection of product use, the incidence of IAD in this unit fell from 0.17% in January-June to 0.11% in July-August, 2018. Discussion: CDI and incontinence can cause IAD. So, by early assessment, early treatment and skin care plan, the incidence of IAD can be reduced to maintain skin integrity, increase comfort, and reduce the infection rate.

**Keywords:** Incontinence-Associated Dermatitis, IAD, Clostridium difficile infection, CDI

Effects of Chemotherapy on Peristomal Skin

 $\bigcirc$  Jun Takahashi $^{\!\scriptscriptstyle 1)}$ , Yoshie Takaki $^{\!\scriptscriptstyle 2)}$ 

Chiba Cancer Center<sup>1)</sup>, Fukuseikai Hospital<sup>2)</sup>

Purpose The aim of this study was to clarify the effects of chemotherapy on peristomal skin in terms of skin function (skin hydration, skin sebum, skin pH, transepidermal water loss), stool consistency, skin symptoms, and the dosage of chemotherapy. Method Statistical analysis was performed on data collected from 11 ostomates (C) who were administered chemotherapy, and 11 ostomates (NC) who were not administered chemotherapy. Results A statistically significant difference was observed in stool consistency between C and NC (P<0.05). The number of skin symptoms for C was more than for NC. Additionally, for C there was a positive correlation between the accumulated dosage of chemotherapy and transepidermal water loss in the peristomal skin. Conclusions The effects of chemotherapy on the peristomal skin include loose stools, changes to the skin and the skin barrier functions, etc.

**Keywords:** chemotherapy, peristomal skin, skin function

#### P-30

The application of ostomy skin tool to document the improvement of peristomal skin pressure injury

○ Yi Ti Liu<sup>1,2)</sup>, Chin-Hao Hsu<sup>1,2)</sup>, Chih-Hsuan Chang-Chien<sup>1)</sup>, Sam Yang<sup>1)</sup>

Ditmanson Medical Foundation Chia-Yi Christian Hospital Division of Plastic Surgery<sup>1)</sup>, Wound care center<sup>2)</sup>

Background: A 70-year-old male farmer received abdominal wall (right lower quadrant) ileal conduit plus pelvic lymph node dissection due to bladder cancer. As the height of the enterostomy stoma was 0.5 cm, a long-term application of convex baseplate surrounding the stoma was required. The convex baseplate was renewed once every 7 days. However, due to the peristomal leakage, the total score of the ostomy skin tool (i.e., discoloration, erosion tissue overgrowth (DET) score) was up to 10 points in combination with pressure injury. The resulting pain affected the performance of the pouch and the patient's quality of life (QoL) significantly. Purpose: This study aims to improve the patient's QoL and reduce the incidence of peristomal leakage. Methods: The wound, ostomy and continence (WOC) nurse adopted a flat baseplate plus moldable ring to protect stomal skin (by reducing the skin pressure) and prevent ostomy leak, and also applied a silver-containing wound dressing to achieve anti-inflammation and facilitate wound healing. The skin care products were renewed once every 4 days. Results: After 2 weeks of treatment, the DET score was calculated again and compared with that at baseline. The results showed that the pain scale was relieved and the peristomal skin was completely repaired without any peristomal leakage. Conclusion: It is known that peristomal skin lesions compromise skin elasticity fullness and increased infection rates. A better understanding of contributing factors and the selection of adequate products is key to reduce peristomal leakage and eventually improve the patient's QoL.

Keywords: Ileal conduit, Skin, Pressure injury

Hospice Shared Care of Jejunostomy Leakage Combined with Macerated-associated Skin Damage

# ○ HSIAO-CHUN HE, YU-CHIN HSU, CHIA-MIN LAI

Nursing Department, Cathay Medical Care Corporate Sijhih Cathay General Hospital

Purpose A case of 83-year-old male placed a jejunostomy after gastric cancer surgery. The tumor recurrent compression stoma caused intestinal contents exudative during the hospitalization. The skin around the stoma infiltrated the digestive juice and cause maceratedassociated skin damage. Face rating scale measure pain score was 8 points, the nature of the pain is stinging. The affected area L4, TV was determined according to SAC instrument. During the terminal status, the hospice shared care nurse provide individual wound care based on the above assessment results. Methods including 1. Using PH balance skin cleanser to infiltrated skin and Normal saline cleaned wound. 2. Crossting procedure on top of lesion repeat 3 times. 3. The Moldable Ring coated the stoma-paste completely fill up the gap between stoma and inner ring. 4. Use an onepiece post-op drainable stoma pouch, and place a gauze around the tube absorb exudate, then cut a small hole let the jejunostomy tube out of the pouch. Result As assessed by the SAC instrument, the lesion area was improved from L4 to L1, after apply one-piece post-op drainable stoma pouch to collect exudate and reduce the frequency of changing dressing. The pain score was improved from 8 to 2 point. Conclusion As the disease progress, the jejuno-stoma often leaks of the terminal patient, thus causing the Total suffering of the patient and his or her family. Although it is impossible to reverse the deterioration of the patient's condition. The essence of medical care should be to cure sometimes, to relieve often, to comfort always and committed to continuous improvement in the quality of life of patients.

**Keywords:** Jejunostomy leakage, Macerated-associated skin damage, SAC Intrument

#### P-32

Taking care of a patient who has successfully weaning from ventilator after a laparotomy combined with a total parenteral nutrition (TPN) supply

# ○ CHANG CHUNCHI

ChangHua Christian Hospital

Background Gastrointestinal disease are often accompanied by the incidence of malnutrition. Providing appropriate nutrition support in patient with ventilator dependent can reduce the burden work of breath enhance wound healing and weaning ventilator earlier. This case is a Intraabdominal abscess with GI bleeding s/p Enterolysis + Drainage of intra-abdominal abscess + Check bleeding with long term total parenteral nutrition (TPN) supply who weaning ventilator successful in Respiratory Care Center. Aim Case sharing with Intra-abdominal abscess with GI bleeding s/p Enterolysis + Drainage of intra-abdominal abscess + Check bleeding with long term total parenteral nutrition (TPN) supply who weaning ventilator successful in Respiratory Care Center. Methods After patient transferred to Respiratory Care Center, we adjust total parenteral nutrition (TPN). The ventilator weaning process according to the ventilator weaning protocol. Checking nutrition index-Transferin and Albumin to monitor nutrition status and observe abdomen wound regularly. Results Patient was transferred to Respiratory Care Center on 30 August and according to the body mass provide 1600Kcal/day protein:75gm fat:55g glucose:220g. Transferin increasing from <70mg/dl to 111mg/dl and Albumin increase from 1.0gm/dl to 3.7gm/dl. Patient's abdomen w'd less discharge. On 9-18, removed oral endotracheal tube with Non-invasive ventilator (NIV) support. On 9-20, NIV was shift to venturi-mask use. Conclusion Providing enough nutrient supplements can not only help the healing of the wound, but also improve the chance of successfully weaning ventilator.

Keywords: weaning ventilator, nutrition support

Application of antibacterial dressings in peristomal infection

O Hsiao-Chun Ke, Chun-Min Chen

Department of Colorectal Surgery, Kaohsiung Chang Gung Memorial Hospital

Patients with rectal cancer often need to undergo enterostomy and chemotherapy because of their medical needs. This article describes a patient with rectal cancer and liver metastases undergoing enterostomy surgery and chemotherapy. During the treatment period, Infection symptoms such as erythema, induration, ulcers, and pain occur on the skin around the stoma. Through caring for this case during 107.7.11 to 107.8.17, we understand the pressure and anxiety of the patient during the treatment process and realize why he lose confidence in the wound and ostomy care. In this case, we used the concept of maintaining moisture of the wound bed to increase healing and using antibacterial dressing to improve wound infection, so that patient and families can reduce anxiety and restore confidence in self-care.

Keywords: wound, aquacel ag, infection

#### P-34

Implement a Structured Care Regimen in Treat of Patient with Fecal Incontinence-Associated Dermatitis

#### O YU-CHIN HSU

Sijhih Cathay General Hospital

Purpose: Fecal incontinence resulting from the use of antibiotics often occurs in medical intensive care units patients, with an incidence rate is up to 61.3 per cent. Even a foley catheter had been placed, 53.3 per cent of patients developed incontinence-associated dermatitis (IAD), it causes patients significant discomfort (such as pain, burning, bleeding, stinging, itching or superficial ulceration in the affected area and is susceptible to secondary skin infections) and can be difficult and time-consuming to treat. A skin barrier cream to protect skin and promote the healing of fecal incontinence-associated dermatitis. Implement a structured care program was established based on evidence literatures to treat patients with moderate to severe fecal incontinenceassociated dermatitis. METHODS: Managing the patient's fecal incontinence avoids causing further skin damage would be a major challenge for clinical caregivers. Implementing a structured incontinence dermatitis care regimen and treatment, including the following steps: Assessing incontinence dermatitis severity, managing incontinence to reduce skin contact with faeces. using a neutral cleanser to clean skin after defecation, applying a skin barrier cream, which contains 20% zinc oxide, karaya stoma powder, petrolatum and dimethicone, leaving a gauze at the anus to separate the gluteal fold, and never using a multi-layer diapers. RESULTS: After the above structured care regimen had been implemented, the affected area of patients with severe fecal incontinence-associated dermatitis are alleviated and healed. CONCLUSION: It is a challenge for clinical caregivers by managing patient's fecal incontinence and well recording risk factors about pressure injury to prevent from further skin damage. Applying structured care to treat the moderate to severe incontinence-associated dermatitis patients based on evidence literature, improving care quality and make patients having more comfortable hospitalization experience.

**Keywords:** incontinence-associated diarrhea, IAD Severity Categorisation Tool, Structured Care

Correlation between Faceplates of One-Piece Ostomy appliances and Physical Characteristics

O Akiko Egawa

The Jikei University School of Medicine Daisan Hospital

Introduction: The use of soft convex appliances has increased in recent years, but its selection criteria are not clear. We have clarified the relationship between abdominal condition and the recommended use of a particular type of faceplate to aid with ostomy appliance selection. Method: The subjects for this study were patients who visited Hospital A from April to September 2017, who had gastrointestinal ostomy surgery at least 3 months before the study with stabilized stoma care, and who were using one-piece appliances manufactured by Company B. Among these subjects, 5 out-patients who were using flat, soft convex, or firm convex faceplates were randomly selected, and each group was compared by age, stoma height, abdominal type, and with Bristol Stool Form Scale score. Data collected from the subjects were managed using a numbering system. Results / Conclusions: The average age of the soft convex group was significantly older than the subjects in the flat group. This may have been caused by the fact that it is, generally, easier to obtain a tight fit with a soft convex faceplate among elderly subjects who have sagging skin. There was a significant difference in stoma height. It was the highest among those in the flat group, followed by the soft convex and firm convex groups. The average stoma height of 13.4mm for soft convex group may be one of the recommended parameters for the selection of soft convex faceplates. The flat group had the thickest abdominal wall, and there was the correlation of the abdominal wall thickness and faceplate selection. Lastly the average Bristol Stool Form Scale score of the flat group was the lowest among the groups and it was significantly different. Similar analysis will be conducted once additional data has been collected.

**Keywords:** Stoma faceplate, Physical assessment, Soft convex

#### P-36

Comparison of surgical outcomes between Mercedes procedure and conventional primary closure in ileostoma reversal

 Mayu Goto, Tomoaki Kaneko, Yasuo Nagashima, Takamitsu Sakai, Yu Yoshino, Takamaru Koda, Satoru Kagami, Mitsunori Ushigome, Kimihiko Funahashi

Department of General and Gastroenterological Surgery, Toho University Omori Medical Center

Background / Aim: Recently, ileostoma is frequently created to prevent severe problems after leakage in rectal surgery, especially superlow anterior resection and intersphincteric resection. However, the postoperative morbidity following stoma reversal ranges from 0 - 40% with surgical site infection (SSI) as the most common complication. The aim of this study is to retrospectively evaluate surgical outcomes of Mercedes procedure (Mercedes group) in ileostoma reversal, compared to conventional primary closure (PC group). Methods: We compared surgical outcomes of 98 Merceds procedure to 19 conventional primary closure in ileostoma reversal between May 2004 and December 2013 in Toho University Omori medical center. Results: There were no differences in the patients' characteristics but BMI between the two groups: sex, age, comorbidity including DM, COPD and hypertension. Regarding surgical outcomes, operation time in the Mercedes group was significantly shorter than that in the PC group: 100 (range, 52-212) minutes vs. 124 (range, 43-275) minutes; p=0.0395. SSI rate in the PC group was high of 31.6% (6/19), and was higher than 11.2% (11/98) in the Mercedes group (p=0.0514). No statistical differences were observed in blood loss, occurrence of Ileus and anastomotic leakage between the two groups. Conclusion: Mercedes procedure in ileostoma reversal may be an effective to reduce the risk of SSI in stoma reversal wound.

**Keywords:** SSI, ileostoma reversal, Mercedes procedure

A review of the literature for peristomal skin disorders in patients with metastatic colorectal cancer who received targeted therapies

O Kazue Yoshida<sup>1)</sup>, Atsuko Maekawa<sup>2)</sup>, Yuji Toiyama<sup>3)</sup>

Graduate School of Medicine, Course of Nursing, Faculty of Medicine Mie University  $^{\!\scriptscriptstyle 1)}$  ,

Graduate School of Medicine, Course of Health Faculty of  $\text{Medicine}^{2)}$  .

Mie University Hospital Department of Surgery<sup>3)</sup>

**Background:** Patients with metastatic colorectal cancer (mCRC) commonly experience skin disorder associated with targeted therapies including anti-EGFR antibody and anti-VEGF antibody.

**Purpose:** We reviewed the published papers regarding skin reaction in the patients who received targeted therapies for mCRC, and conducted future plan about the care of skin damage associated with targeted therapies.

Method: In CINAL data set, we searched for 10 papers using key words ["Targeted therapy × Skin reaction × Colorectal cancer (Free full text)"]. In PubMed data set, 11 and 5 papers were found out using key words ["Epidermal growth factor receptor (EGFR) × Skin reaction × Colorectal cancer (Free full text)"] and ["Vascular endothelial growth factor (VEGF) × Skin reaction × Colorectal cancer (Free full text)"], respectively. Total 26 papers were investigated to make a plan for future research.

Results: According to our review, almost of all studies were reported by medical doctors. They reported the EGFR targeted therapy induced several symptoms, such as acneiform eruptions, pruritus, rash, handfoot skin reaction and paronychia. On other hand, the patients treated with the VEGF targeted therapy also had several symptoms, such as hand-foot skin reaction, thrombosis and delayed wound healing. These adverse events sometimes stop the treatment with the targeted therapyies. We did not found any papers regarding the skin disorder surrounding stoma sites associated with targeted therapies for mCRC patients. However we, for the Wound Ostomy and Continence nurse, frequently encounter in those cases.

**Conclusions:** Thus, we have a plan to perform the observation study of mucosa and skin alternations surrounding stoma site due to targeted therapies.

**Keywords:** Metastatic colorectal cancer, Targeted therapy, Peristomal skin disorders

# P-38

Simulation program on management of colostomy for caregivers

O Chie Furukawa

Sanyo Gakuen University

Aim The aim of this study were developed simulation program and to evaluate its effectiveness in terms of knowledge and skill attainment by caregiversSetting and DesignThe study design was time series This was conducted among 50 caregivers who have worked at a nursing care home in Osaka cityMaterials and MethodsSimulation program related to colostomy was developed and used to teach the caregivers about colostomy carePretested and validated knowledge questionnaire observational checklist and stoma assessment scale were used to assess the knowledge and skills of caregivers before and after the administration of simulation program after and 4 weeks after the interventionEthical procedures This study procedure and protocol were reviewed and approved by the Ethics Committee of the A universityResultsThere were significant increases in knowledge and skill scores as assessed by the observation checklist immediately after and 4 weeks after the simulation programHowever a decline in skills was observed at 4 weeks when compared with immediate scores as measured by the observation checklist There was no significant increase in the skill scores of care givers as measured by stoma assessment scores at 4 weeks compared to the immediate scoresConclusionThe simulation program was effective in bringing about an increase in the knowledge and skill of caregivers of clients with colostomy

Keywords: simulation, stoma, caregiver

Standard procedure for loop stoma construction and closure

 Taito Tomita, Hideto Fujita, Yoritaka Fujii, Seiko Miura, Jun Fujita, Takashi Miyata, Naohiko Nakamura, Shinichi Kinami, Takeo Kosaka

Kanazawa Medical University, Department of General and Digestive surgery

Introduction Thanks to recent evolutions in surgical procedures for rectal cancer, opportunities for stoma construction have been increasing. Standard stoma construction and closure procedures with fewer complications are required. This presentation shows the standard surgical procedure for loop-type stoma construction and closure in our department and presents the treatment outcomes.

Material & Methods Postoperative results of 36 patients with sigmoid colon or rectal cancer who underwent loop stoma construction and closure between January 2009 and December 2017 were examined. Ileostomy and colostomy were performed in 20 and 16 patients, respectively. Reasons for construction were diversion in 23 cases, ileus in 8 cases, and leakage at the anastomosis in 5 cases.

Procedure for construction: The intestinal tract is incised for one-third of the circumference near the skin. The oral-side intestinal tract was made to be protruding-type, while anal-side was made to be flattype with absorbable monofilament sutures.

Procedure for closure: The skin around the ostomy opening is dissected 2-3 mm from the mucosal skin suture. After detaching to the surrounding fat, the opening is sutured closed. The skin is then washed again. Carefully the intestinal tract is peeled. In principle, closure is achieved by handsewn anastomosis. Skin closure typically involves conventional simple closure, but since 2016 has been done by circular skin closure.

Results Complications at the time of construction comprised stoma prolapse in 6%, and parastomal hernia in 3%. Complications at closure were wound infection in 19% and ileus in 14%. The incidence of wound infection by closure method was as low as 26% for simple closure and 8% for circular closure.

Conclusion The surgical technique for loop stoma construction and closure in our department appears appropriate as a standard operation.

**Keywords:** loop stoma, Standard procedure, circular skin closure

#### P-40

Relief caused by medical device related pressure injury

O Wan-Ching LI

Nurse Practitioner Surgical Intensive Care Unit, Sijhih Cathay General Hospital

Background A 91-year-old female was a case of old cerebral vascular accidents with bed ridden status, Admitted to our hospital with BI-PAP (Bi-level positive airway pressure) therapy due to acute respiratory failure, This therapy induced facial pressure sore and nasal bone exposure combine deep chronic ulcer wound was noted after our treatment, This pressure sore was process improved after intubation and chronic ulcer treatment with included Aquacel-Ag stuffing nasal bone wound, mepilex border safetac self-adherent soft silicone foam dressing cover pressure wound. Method 1. Using N/S for clean wound 2. Aquacel-Ag stuffing nasal bone wound, mepilex border safetac self-adherent soft silicone foam dressing cover pressure wound. 3. Eight-character with duoderm of face.4. Artificial skin cover face (exclude the tape contact skin) Result We collected exudate effectively and reduced change wound dressing frequency, lessen skin tissue damage and skin macerations had been controlled, decrease medical device related pressure injury risk, the patient had better life quality at hospital. Conclusion The medical device related facial pressure sore with chronic ulcer was a persecute status, that could be distressing for patient and treatment member's, correct wound assessment and suitable dressing selections could reduce frequency of dressing change and achieve comfort and spiritual calm, The optional treatment of pressure sore is no pressure relation condition like intubation treatment.

**Keywords:** medical device related pressure injury, pressure wound, Aquacel-Ag

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Editor-in-Chief : Prof. Kotaro Maeda e-mail: kmaeda@fujita-hu.ac.jp

