



Program Book



13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society

APSS-APPOS 2021

In collaboration with the Japanese Society for Spine Surgery and Related Research
Combined with the 60th Meeting of Japanese Paediatric Hip Research Society

June 9 | Wed. | - 12 | Sat. |, 2021

Live streaming

June 10 [Thu] - 12 [Sat]

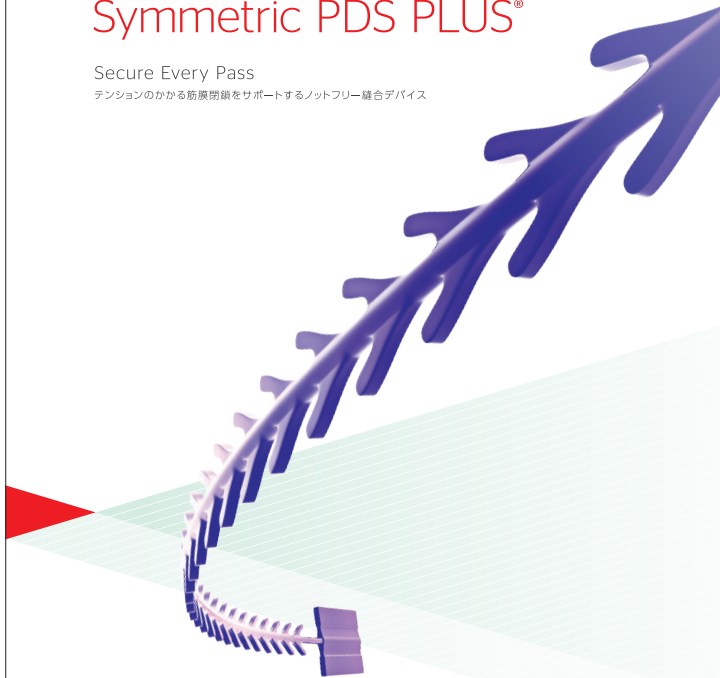
On-demand streaming

June 10 [Thu] - 30 [Wed]

Kobe International Conference Center, Japan

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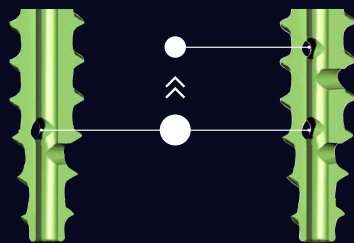
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APSS-APPOS 2021

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Welcome Message

On behalf of the Local Organizing Committee of the Asia Pacific Spine Society (APSS) & Asia Pacific Paediatric Orthopaedic Society (APPOS), we would like to express our sincere condolences to those around the world who have been directly affected by the COVID-19, and convey our deepest gratitude to the medical professionals who have put their hearts and souls into the fight against the virus.

Due to the continued uncertainty surrounding the COVID-19 pandemic, and to protect the health and safety of our speakers and participants, we have decided to hold APSS-APPOS 2021 as a hybrid meeting from June 9th (Wed.) to 12th (Sat.), 2021. (On-demand streaming will be available until June 30th).

Despite the change to a hybrid format, the meeting will continue to be comprehensive. Lectures and symposia will be available both live and on-demand, APSS and APPOS free paper presentations will be separately available on-demand, and a joint symposium on pediatric spinal issues will provide a great opportunity to virtually exchange updates on academic and scientific knowledge with our Asian colleagues even in this challenging time.

With the help of technology, we are moving to the next level of active interactions. Through virtual meetings, we are still able to gather to share innovative ideas and foster mutual friendships at a time and location of our convenience.

Whether virtually, or in-person in Kobe, Japan, we look forward to seeing you all!



Congress Chairman of APSS
Prof. Morio Matsumoto



Congress Co-Chairman of APSS
Prof. Yukihiro Matsuyama



Congress Chairman of APPOS
Prof. Yasuharu Nakashima



Welcome Message from Secretary General

It is a great pleasure to greet you to the 13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society (APSS-APPOS 2021 Kobe). Activities of the APSS and APPOS have been strongly influenced by the international outbreak of SARS-CoV-2 coronavirus infection, especially cancelling the APSS 2020 Shanghai meeting, fellowship and courses.

In these difficult times, despite the meeting moving towards hybrid format, we are overwhelmed by the passion and collaboration of the members of APSS, APPOS and friends with receiving more than 540 abstract submissions.

We would like to acknowledge the local scientific committee and the APSS and APPOS scientific committee for organizing a great program and truly hope that the meeting will bring out fruitful communication among all participants and friends in the coming post COVID years.



Secretary General of APSS
Dr. Narihito Nagoshi



Secretary General of APSS
Dr. Kota Watanabe



Secretary General of APPOS
Dr. Ryosuke Yamaguchi



Local Organizing Committee

	APSS	APPOS
Chairman	Morio Matsumoto Prof., Keio University President, Japanese Orthopaedic Association	Yasuharu Nakashima Prof., Kyushu University Vice President, Japanese Orthopaedic Association
Co-Chairman	Yukihiro Matsuyama Prof., Hamamatsu University School of Medicine President, Japanese Society for Spine Surgery and Related Research	
Secretary General	Narihito Nagoshi Assistant Prof., Keio University Kota Watanabe Associate Prof., Keio University	Ryosuke Yamaguchi Assistant Prof., Kyushu University
Organizing Committee	Hiroshi Ozawa Prof., Tohoku Medical and Pharmaceutical University Hirotaka Haro Prof., Yamanashi University Masaya Nakamura Prof., Keio University Manabu Ito Director, Hokkaido Medical Center Yoshiharu Kawaguchi Prof., Toyama University	Takuya Otani Prof., Jikei University School of Medicine President, Japanese Pediatric Orthopaedic Association Shinichi Satsuma Director, Kobe Children's Hospital Vice president, Japanese Pediatric Orthopaedic Association Hidehiko Kawabata Director, Osaka Rehabilitation Hospital for Children
Scientific Committee	Daisuke Sakai (Chair) Associate Prof., Tokai University Shinji Takahashi Medical Lecturer, Osaka City University Mitsuru Yagi Assistant Prof., Keio University Yu Yamato Assistant Prof., Hamamatsu University School of Medicine Gen Inoue Associate Prof., Kitasato University Takashi Kaito Assistant Prof., Osaka University	Kazuyuki Takamura (Chair) Director, Fukuoka Children's Hospital Kiyoshi Aoki Chief, Asahigawasou Rehabilitation and Medical Center Daisuke Kobayashi Director, Kobe Children's Hospital Motohiro Kitano Director, Osaka National Hospital



Leadership of APSS & APPOS

	APSS	APPOS
President	Keith Dip Kei Luk (Hong Kong)	Bobby Kinwah Ng (Hong Kong)
Vice President (President Elect)	S. Rajasekaran (India)	Tae-Joon Cho (Korea)
Past President	K. S. Sivananthan (Malaysia)	Ashok Johari (India)
Honorary Secretary	Mun Keong Kwan (Malaysia)	Leo Thomas Donnan (Australia)
Honorary Treasurer	Wong Yat Wa (Hong Kong)	Yasuharu Nakashima (Japan)
Council Members	Orso L. Osti, Brian Hsu (Australia) / Md Shah Alam, Khondker Abdul Awal, Md Kamrul Ahsan (Bangladesh) / Zhuojing Luo, Hui ren Tao, Zhaomin Zheng (China) / Yat Wa Wong, Jason Pui Yin Cheung, Kenny Yat Hong Kwan (Hong Kong) / Ram Chaddha, Ajoy Prasad Shetty, Saumyajit Basu (India) / Zairin Noor, Luthfi Gatam (Indonesia) / Morio Matsumoto, Yukihiro Matsuyama, Daisuke Sakai (Japan) / Kee-Yong Ha, Ki-Tack Kim, Kyu-Jung Cho (Korea) / Chung Chek Wong, Chris Yin Wei Chan, Chee Kidd Chiu (Malaysia) / Myint Thaug, Thant Zin Naing (Myanmar) / Rohit K Pokharel, Rabindra L Pradhan (Nepal) / Muhammad Tariq Sohail, Abdul Satar, Shahid Ali (Pakistan) / Jose Manuel F. Ignacio, Ronald Tangente (Philippines) / Hee Kit Wong, Wai Mun Yue, Yung Hua Li (Singapore) / Swarnakumaar Velayutham, Udai De Silva (Sri Lanka) / Torphong Bunmaprasert, Athikom Methathien (Thailand) / Shu-Hua Yang, Chi-Chien Niu, Wen-Tien Wu (Taiwan) / Mehmet Aydogan (Turkey) / Vo Van Thanh (Vietnam)	Leo Thomas Donnan, Peter Cundy (Australia) / Amjad Hossain, Sarwar Salam (Bangladesh) / Li Zhao, Ruixue Ma (China) / Bobby Kinwah Ng, Wang Chow (Hong Kong) / Benjamin Joseph, Vrisha Madhuri (India) / Ucok Paruhum Siregar, Aryadi Kurniawan (Indonesia) / Hidehiko Kawabata, Yasuharu Nakashima (Japan) / Jong Sup Shim, Tae-Joon Cho (Korea) / Roshan Gunalan, Sharaf Ibrahim (Malaysia) / Bayantsugaon Budee (Mongolia) / Myint Thaug, Soe San (Myanmar) / Haemish Crawford, Jean Claude Theis (New Zealand) / Javed Iqbal (Pakistan) / Juanito Xavier, Julyn A Aguilar (Philippines) / Arjandas Mahadev, James Hui Hoi Poh (Singapore) / Chia Hsieh Chang, Wang Ting Ming (Taiwan) / Kamolporn Kaewpornawan, Thammanoon Srisaarn (Thailand) / Nguyen Ngoc Hung (Vietnam)



Conference Information A to Z

Access the Virtual Meeting

The "Virtual Meeting" page will be available from June 10th, 2021 on the official website. To access, please click the "Virtual Meeting" button on the website and follow the steps below.

STEP 1: "Log-IN" to the menu page by entering your ID and Password which you created when you submitted your abstract or when you registered for the congress.

STEP 2: Click the "APSS-APPOS 2021 Virtual Meeting" button at the top of the menu page.

*If you haven't yet completed your congress registration, please complete your registration first.

Act of God

It is mutually agreed that in the event of total or partial cancellation of the congress due to fire, strike, natural disaster (either threatened or actual), government regulation or incidents not caused by the organizer, which should prevent its scheduled opening or continuance, the congress may be partially postponed or terminated as a whole. In this case, participants are not entitled to reclaim refunds on no account. Participants are obliged to have civil liability insurance.

Best Paper Awards

The Organizing Committee of APSS-APPOS 2021 will be presenting "Best Paper Awards" at this year's meeting. The awards will recognize outstanding papers in basic and clinical research in the fields of spine and paediatric orthopaedics. You can view the nominees and their presentation data from the "Virtual Meeting" page. Winners of the awards will be announced on the congress website during the congress period.

Browsers to View Sessions Online

Recommended browsers

Latest version of Chrome, Safari, Firefox, and Edge.

Google Chrome	85.0 or later
Mozilla Firefox	81.0 or later
Microsoft Edge	85.0 or later
Apple Safari	14.0 or later

*Internet Explorer (IE) is a non-compliant browser for viewing presentation videos.

Please use one of the above recommended browsers.

Certificates

<Certificate of Attendance>

It will be available from June 10, 2021 on your registration page.

<Certificate of Presentation>

It will be available for first author and co-author(s) who has completed congress registration.

If you wish to have the certificate of presentation(s), please contact the secretariat via e-mail (apps-apos2021@congre.co.jp), by June 30, 2021.

It will be sent to your registered e-mail after the meeting ends around early July.



Clock for Participants on-site

Location: 504+505, 5F, Kobe International Conference Center

Operation hours:

June 10 (Thu.)	9 : 00 - 19 : 30
June 11 (Fri.)	8 : 00 - 20 : 00
June 12 (Sat.)	8 : 00 - 15 : 30

Devices to Access the Virtual Meeting

The virtual meeting can be accessed on most mobile devices* (including tablets and smartphones). However, for the best performance and experience, we strongly recommend using a desktop computer or laptop with a hardline internet connection. Please note that it is not possible to use your ID & Password simultaneously on multiple devices.

*The virtual meeting cannot be accessed on traditional flip phones.

Discussion (Q&A)

For most of the Live-Streamed sessions, each speaker's presentation will be followed by a discussion.

<Live-stream Session>

Questions will only be accepted through the Zoom "Q&A" function during the session. To ask the moderators/speakers your questions, please click the Zoom "Q&A" button. Depending on the remaining session time, moderators/speakers may not be able to answer your questions.

<On-demand Session>

Q&A for Free Papers will only be available on-demand from June 10 (Thu.) - June 17 (Thu.) on the "Virtual Meeting" page. To ask questions, please click the "Q&A" button on the "Virtual Meeting" page.

Exhibition

Location: Lobby, 5F, Kobe International Conference Center

Dates/Hours:

June 10 (Tue.) 10 : 00 - 18 : 00

June 11 (Fri.) 8 : 45 - 18 : 00

June 12 (Sat.) 8 : 45 - 15 : 15

A Virtual Exhibition is also available on the "Virtual Meeting" page. Please visit the booth and virtually contact any exhibitors that may interest you.

Important Regulations

Recording videos, recording audio, taking photos (including screen shots), and downloading any of the presentation data (including slides, images, videos, posters) and abstracts for the 13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society are strictly prohibited.

Moderators and Speakers <on-site>

<Speakers>

Speakers are asked to stop by at the Speakers' Preview Desk and register the data 45 minutes at the latest before the designated time of the session.

<Moderators and Speakers>

Please come to the session room 30 minutes at the latest before the designated time.



Moderators and Speakers <Online>

Zoom address and ID/PW for online participation will be provided when it is closer to the meeting. Please kindly log in to the assigned Zoom address 1 hour at the latest before the designated time. The secretariat will individually run a connection test and microphone / camera check for each moderator / speaker.

For those who have more than one role in the program, you will receive Zoom address and ID/PW for each of the session, therefore, please kindly make sure to check each notification and access to it for the correct session each time.

On-demand Streaming

Period : June 10 (Thu.) - 30 (Wed.)

Notes : On-demand only sessions below are available at any time throughout the meeting period on the Virtual Meeting between June 10 (Thu.) and 30 (Wed.).

APSS : Free Paper Presentations, APSS Fellowship Session

APPOS : Free Paper Presentations, Video Session

Live-stream /On-demand sessions will be available on-demand on the next day of the Live-streamed day in the Virtual Meeting.

Prevention Measures against COVID-19

To avoid a spread of COVID-19, we would like to kindly ask all participants on-site to incorporate with followings:

- to wear a mask at any time, carefully wash your hands, gargle, and use sanitizer regularly.
- to avoid talk loud with a large group of people in the venue.
- to submit Declaration form at the registration desk.

Note: we will notify further details to those who will attend the meeting on-site once we get closer to the meeting period.

Registration Desk for Participants on-site

To receive your ID card, please visit a registration desk at following operating hours.

Location: 504+505, 5F, Kobe International Conference Center

Operation hours:

June 10 (Thu.)	9 : 00 - 18 : 00
June 11 (Fri.)	8 : 00 - 18 : 30
June 12 (Sat.)	8 : 00 - 13 : 45



Registration Fee

Registration is available only through the registration page even during the meeting period on-site. Please access our official website and complete the registration.

Registration Category		On-site & Post Congress (June 9 - June 29, 2021)
Member	Orthopaedic surgeon	25,000JPY (US\$250)
	Trainee & Nurse or equivalents	12,000JPY (US\$120)
Non-member	Orthopaedic surgeon	30,000JPY (US\$300)
	Trainee & Nurse or equivalents	17,000JPY (US\$170)
Member (Low incomes countries)	Orthopaedic surgeon	15,000JPY (US\$150)
	Trainee & Nurse or equivalents	7,000JPY (US\$70)
Non-member (Low incomes countries)	Orthopaedic surgeon	20,000JPY (US\$200)
	Trainee & Nurse or equivalents	12,000JPY (US\$120)

Speakers' Preview Desk for speakers on-site

Location: Lobby, 5F, Kobe International Conference Center

Operation hours:

June 10 (Thu.)	9 : 00 - 18 : 00
June 11 (Fri.)	8 : 00 - 18 : 30
June 12 (Sat.)	8 : 00 - 13 : 45

Sponsored Seminars

<Luncheon Seminars>

Lunch boxes will be distributed in front of each seminar room. Please pick up the lunch box where you attend the seminar. Please understand that the number of lunch boxes is limited, and will be provided on a first-come, first-served basis.

<Morning Seminars>

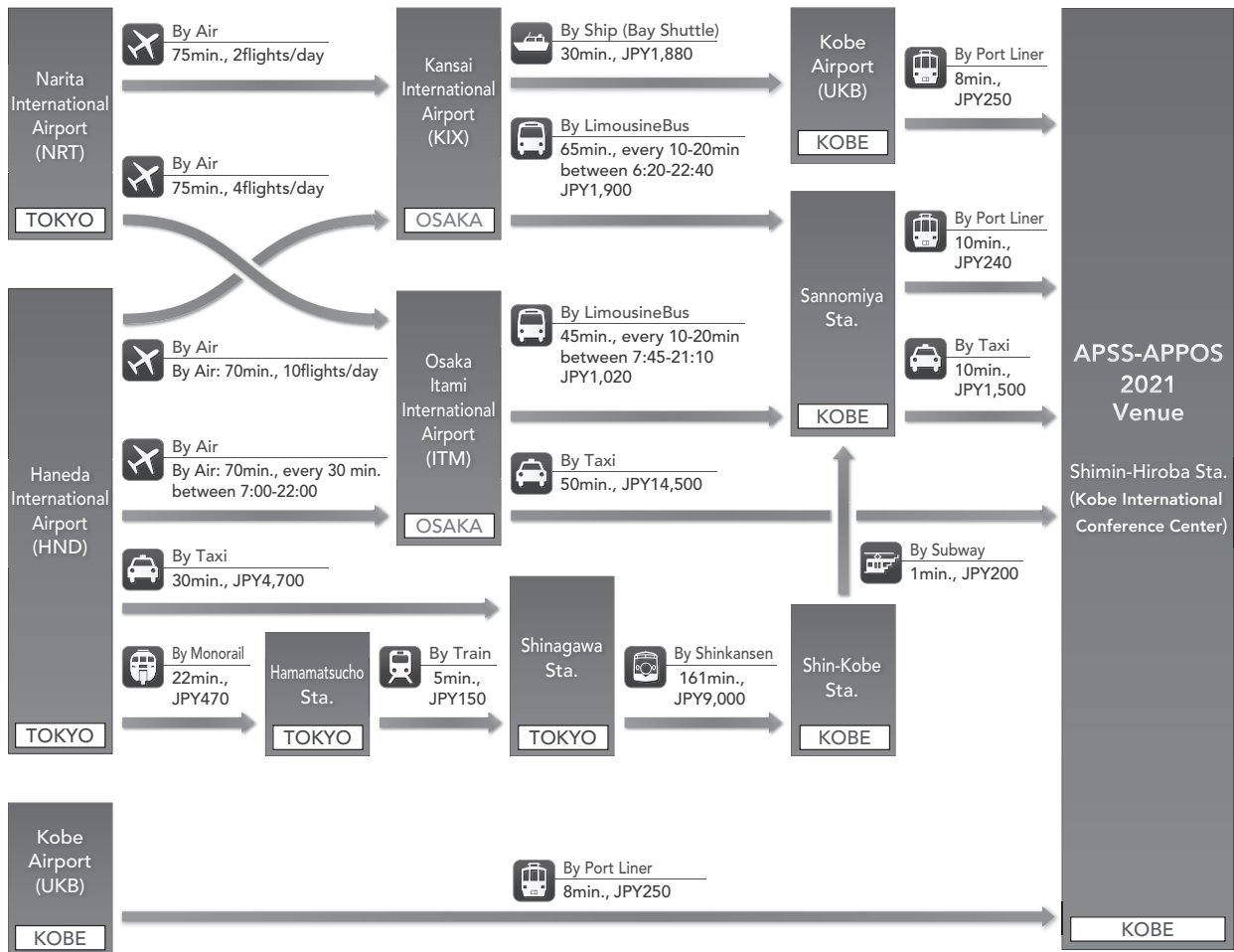
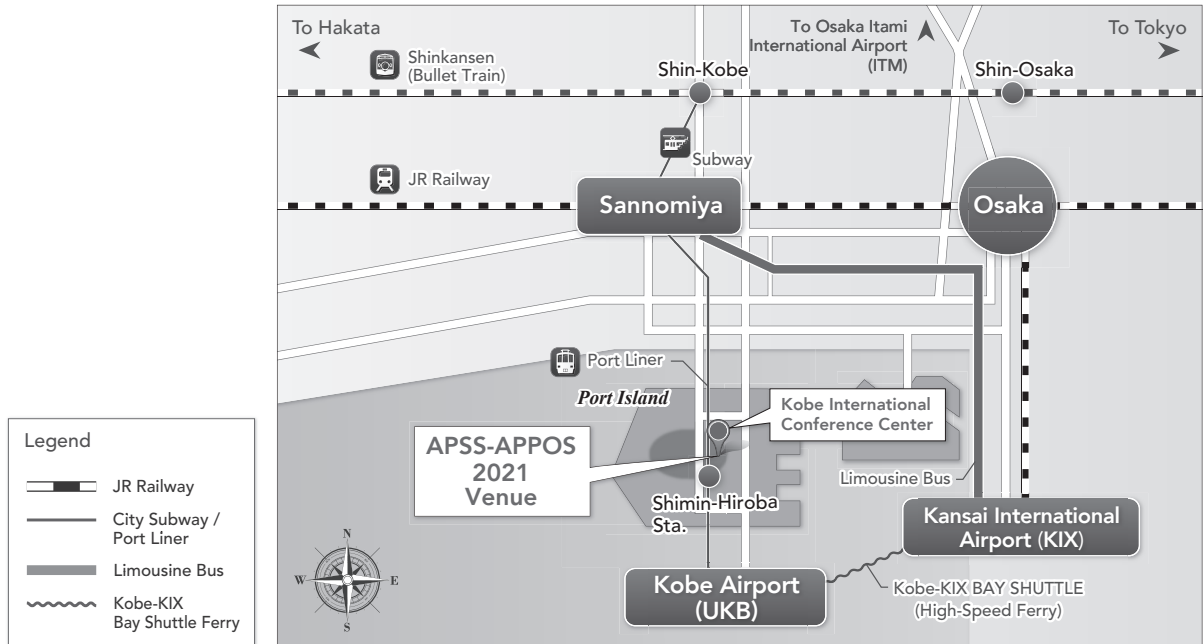
Before seminars start, sandwich boxes will be provided in front of the seminar rooms. Please pick up the sandwich box where you attend the seminar. Please understand that the number of lunch boxes is limited, and will be provided on a first-come, first-served basis.

Streaming Service

We will be using Zoom/ Vimeo to deliver the meeting online. Some countries/areas may restrict the use of these online platforms. If participating from one of these countries/areas, please explore ways in which you are able to use the Zoom/ Vimeo online platforms (such as a VPN). We apologize for any inconvenience this may cause.



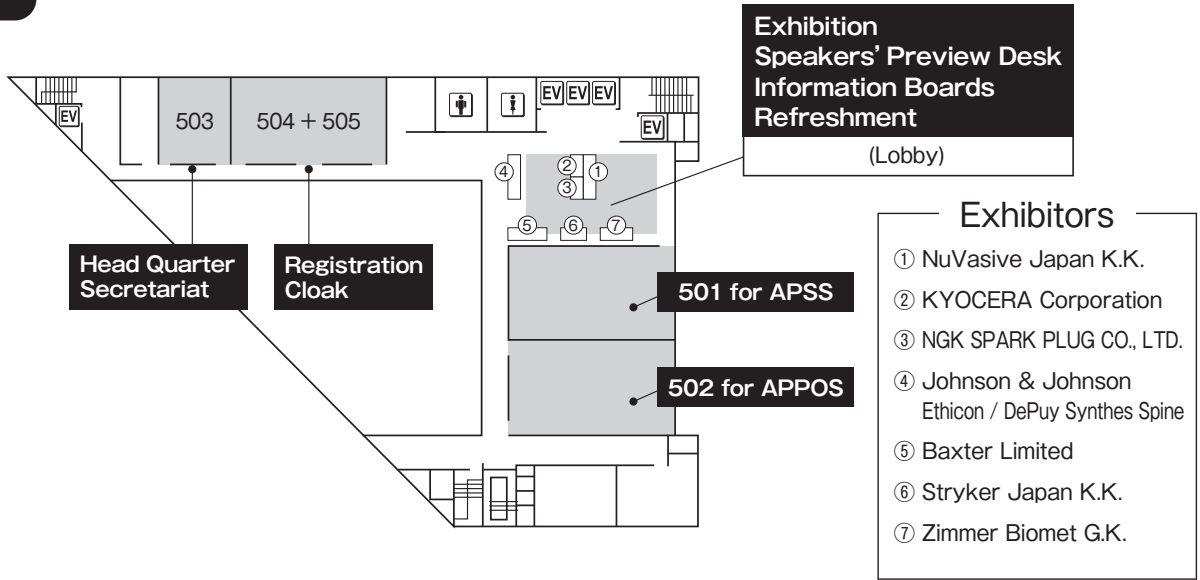
Access to the Venue



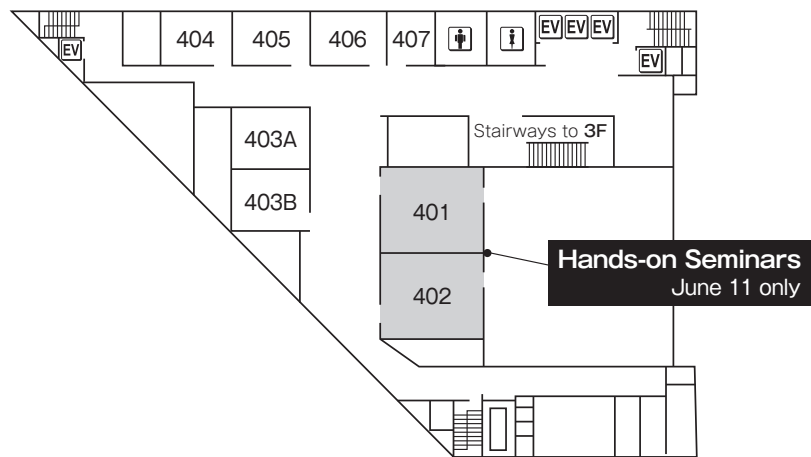


Floor Map

5F



4F





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APSS-APPOS 2021

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Acknowledgement

The Organizing Committee of APSS-APPOS 2021 would like to express its sincere appreciation to the following companies and organizations for their generous support.

<Alphabetical order>
As of May 18, 2021

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- The Japanese Paediatric Hip Research Society
- The Japanese Society for Spine Surgery and Related Research
- TSUTOMU NAKAUCHI FOUNDATION



Program at a Glance

• June 10 (Thu.)

APSS (501)		APPOS (502)	
10:00			10:00
Opening Remarks (Venue: 501) Live			
11:00	Symposium 1: Cervical Spine (OPLL) Live On-demand	Symposium 1: Surgical Management of Upper Extremity Anomaly Live On-demand	11:00
12:00	Symposium 2: Severe Spinal Deformity Live On-demand	Plenary 1 Live On-demand	12:00
13:00	Luncheon Seminar 1 Sponsored by Medtronic Sofamor Danek Co., Ltd. Live	Luncheon Seminar 2 Sponsored by Zimmer Biomet G.K. Live	13:00
14:00			14:00
15:00	Best Paper Live On-demand	Symposium 2: Club Foot Update Live On-demand	15:00
16:00	Meet the Master 1: Cervical Spine and MISS Live On-demand	JPHS Board Meeting Closed	16:00
		JPHS General Meeting of Members Closed	
17:00	Plenary 1 Live On-demand	APPOS-JPHS Combined Symposium 1: LCPD Update Live On-demand	17:00
18:00	Meet the Master 2: Spinal Deformity Live On-demand	APPOS-JPHS Combined Symposium 2: Unstable SCFE Live On-demand	18:00
19:00			19:00

Most sessions are available live & on-demand, however, some sessions are available with limited conditions.

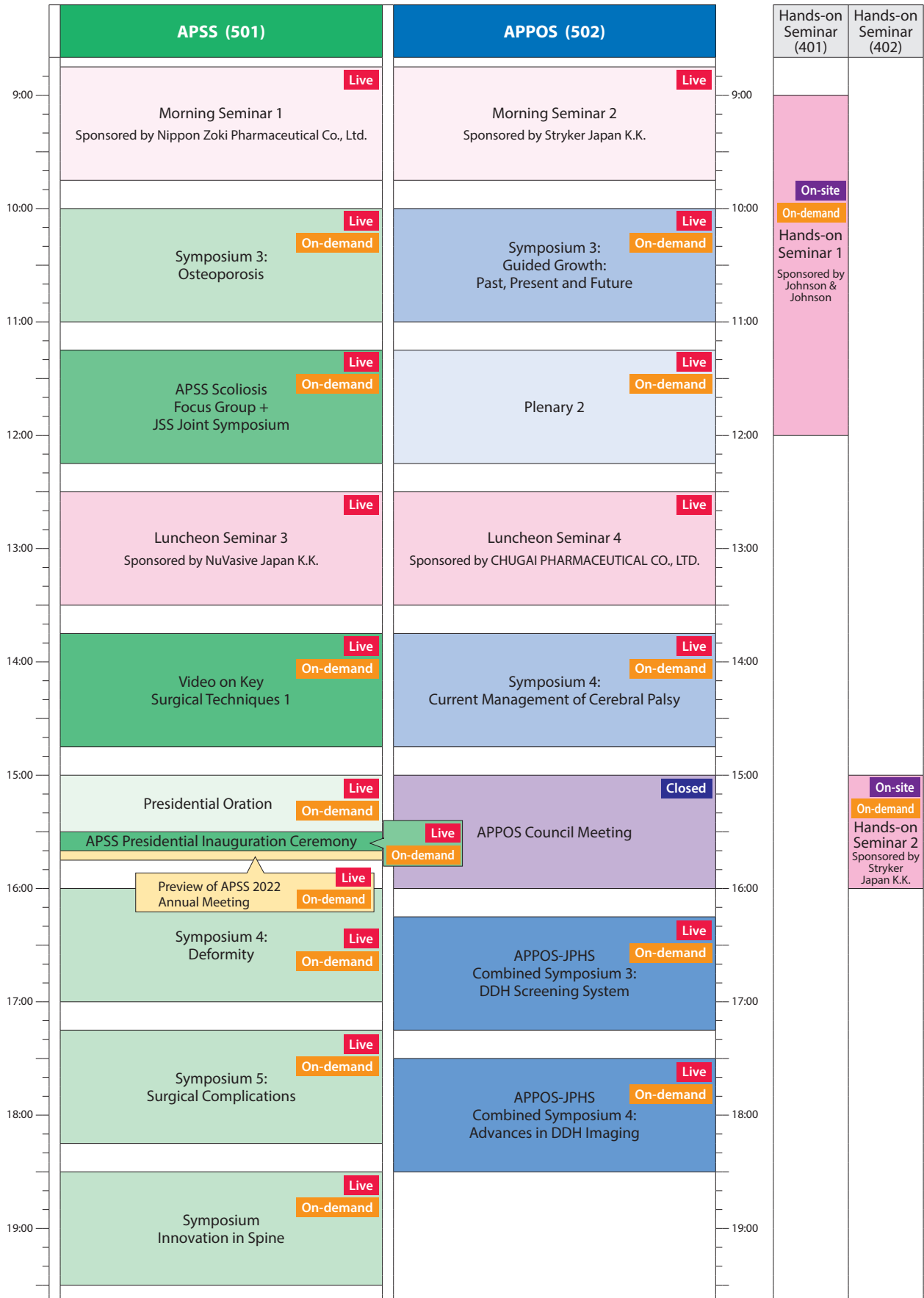


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• June 11 (Fri.)





APSS-APPOS 2021

In collaboration with the Japanese Society for Spine Surgery and Related Research
 Combined with the 60th Meeting of Japanese Paediatric Hip Research Society



• June 12 (Sat.)

APSS (501)		APPOS (502)	
9:00	Morning Seminar 3 Sponsored by KAKEN PHARMACEUTICAL CO., LTD. Live	Morning Seminar 4 Sponsored by Zimmer Biomet G.K. Live	9:00
10:00	Symposium 6: MISS and Spinal Instrumentation Live On-demand	Symposium 5: Arthroscopic Application for Pediatric Joint Diseases Live On-demand	10:00
11:00	Video on Key Surgical Techniques 2 Live On-demand	APPOS-JPHS Combined Symposium 5: Treatment of Acetabular Dysplasia in Older Children Live On-demand	11:00
12:00	Luncheon Seminar 5 Sponsored by Johnson & Johnson Ethicon/DePuy Synthes Spine Live On-demand	Luncheon Seminar 6 Sponsored by AbbVie GK/Eisai Co., Ltd. Live	12:00
13:00	APSS-APPOS Combined Symposium (Venue: 501) Live On-demand		13:00
14:00			Closing Remarks (Venue: 501) Live
15:00			15:00

On-demand Sessions <Any time between June 10 (Thu.) - 30 (Wed.)>		
	APSS	APPOS
WEB only	Free Paper Presentations APSS Fellowship Session	Free Paper Presentations Video Session



Scientific Program_APSS

June 10 (Thu.)_501

10:15 - 10:25

Opening Remarks

Live

10:25 - 11:25

Symposium 1: Cervical Spine (OPLL)

(8 min Presentation + 2 min Discussion)

Moderators: Md Kamrul Ahsan (Bangladesh) / Shankar Acharya (India) / Masahiko Takahata (Japan)

Live On-demand

PS-SY-1-1 Natural history and new concept of surgical treatment for OPLL of the cervical spine

Yoshiharu Kawaguchi (Japan)

PS-SY-1-2 Posterior surgery for OPLL; consideration and techniques

Jong-Beom Park (Korea)

PS-SY-1-3 Anterior solution for complex and longer continuous OPLL of cervical spine

Toshitaka Yoshii (Japan)

PS-SY-1-4 New technology applications in OPLL surgery

Daisuke Sakai (Japan)

PS-SY-1-5 Prevention of surgical complications of OPLL of the cervical spine

Ming-Hsiao Hu (Taiwan)

11:40 - 12:40

Symposium 2: Severe Spinal Deformity

(8 min Presentation + 2 min Discussion)

Moderators: Kenneth Cheung (Hong Kong) / Luthfi Gatam (Indonesia) / Kazuhiro Hasegawa (Japan)

Live On-demand

PS-SY-2-1 The role of EOS in the evaluation of spinal deformity

Bhavuk Garg (India)

PS-SY-2-2 Surgical strategies for drop head syndrome, particularly in patients with adult spinal deformity

Masatake Ino (Japan)

PS-SY-2-3 How to avoid using 3-column osteotomy in severe spinal deformity?

Shiau Tzu Tzeng (Taiwan)

PS-SY-2-4 Intraoperative spinal neuromonitoring deterioration during spinal deformity correction surgery: when it happens, what to do and what to expect

Shiro Imagama (Japan)

PS-SY-2-5 Surgical treatment for neuromuscular disease patients with severe scoliosis whose cobb angle was over 100 degrees

Masayuki Miyagi (Japan)



12:55 - 13:55

Luncheon Seminar 1

Sponsored by Medtronic Sofamor Danek Co., Ltd.

Moderator: Jun Takahashi (Japan)

Live

LS-1-1 **Treat-to-Target strategy in surgical treatment for adult spinal deformity**
Takashi Kaito (Japan)

14:05 - 15:15

Best Paper

Moderators: Norio Kawahara (Japan) / Masahiko Watanabe (Japan) / Yung Hua Li (Singapore) / Ki-Tack Kim (Korea) / Shinji Takahashi (Japan) / Daisuke Sakai (Japan)

Live **On-demand**

PS-BP-ASJ-1 **Introduction to Asian Spine Journal (ASJ)**
Hak-Sun Kim (Korea)

PS-BP-ASJ-2 **Introduction to Asian Spine Journal (ASJ)**
Jae Hwan Cho (Korea)

PS-BP-1 **Significance of vertebral body sliding osteotomy as a surgical strategy for the treatment of cervical ossification of the posterior longitudinal ligament**
Sehan Park (Korea)

PS-BP-2 **Comparison of the clinical and radiographic results between cervical artificial disc replacement and anterior cervical fusion: 10-year follow-up study**
Kai Yan (China)

PS-BP-3 **Deep learning pipeline for automated detection and classification of central canal, lateral recess and neural foraminal stenosis on lumbar spine MRI**
Jiong Hao Tan (Singapore)

PS-BP-4 **Intrathecal administration of recombinant human hepatocyte growth factor for acute traumatic cervical spinal cord injury: double-blinded, placebo-controlled and randomized phase I/II study**
Kazuya Kitamura (Japan)

PS-BP-5 **Prediction of final outcome after posterior correction with lower instrumented vertebra L3 or L4 for the correction of structural thoracolumbar/lumbar curve -minimum 5 years follow-up-**
Kun-Bo Park (Korea)

PS-BP-6 **Better patient experience improves outcomes in paediatric patients with scoliosis**
Yi Ling Chua (Singapore)

PS-BP-7 **Clarifying the therapeutic effect of grafted human iPSC derived neurons in spinal cord injury by chemically controlling neuronal activity**
Takahiro Kitagawa (Japan)

PS-BP-8 **Long-term selective stimulation of transplanted neural stem/progenitor cells for spinal cord injury improves locomotor function mediated by increased synaptic transmission**
Momotaro Kawai (Japan)

PS-BP-9 **Novel biomarkers of health and degeneration in human intervertebral discs - in-depth proteomic analysis of collagen framework of fetal, healthy, scoliotic, degenerate and herniated discs**
Dilip Chand Raja Soundararajan (India)



15:25 - 16:25

Meet the Master 1: Cervical Spine and MISS

(7 min Presentation + 3 min Discussion)

Moderators: Zairin Noor (Indonesia) / Swarnakumar Velayutham (Sri Lanka) / Ken Ishii (Japan)

Live On-demand

- PS-MM-1-1 Post-irradiation upper cervical spine complications**
Jason Pui Yin Cheung (Hong Kong)
- PS-MM-1-2 Anterior pedicle screw and plate fixation in cervical reconstruction**
Yasutsugu Yukawa (Japan)
- PS-MM-1-3 Policy on treatment for spinal cord injury**
Harvinder Singh Chhabra (India)
- PS-MM-1-4 Cervical deformity and complex cervical reconstruction**
Hiroataka Chikuda (Japan)
- PS-MM-1-5 Percutaneous pedicle screw fixation in thoracolumbar spine**
Chee Kidd Chiu (Malaysia)
- PS-MM-1-6 Minimum invasive anterior lumbar interbody fusion for L5/S1**
Seiji Ohtori (Japan)

16:40 - 17:40

Plenary 1

(25 min Presentation + 5 min Discussion)

Moderators: Yukihiro Matsuyama (Japan) / Yat Wa Wong (Hong Kong)

Live On-demand

- PS-PL-1-1 How TES (Total en bloc spondylectomy) was established? -my soul and spirit through "Mission impossible!"**
Katsuro Tomita (Japan)
- PS-PL-1-2 Correction of spine deformities using spinal osteotomy: from the cervicothoracic junction to the lumbosacral spine**
Kuniyoshi Abumi (Japan)

17:55 - 18:55

Meet the Master 2: Spinal Deformity

(7 min Presentation + 3 min Discussion)

Moderators: Vo Van Thanh (Vietnam) / Hiroshi Ozawa (Japan) / Hui ren Tao (China)

Live On-demand

- PS-MM-2-1 A classification for kyphosis based on column deficiency, curve magnitude and osteotomy requirement**
S Rajasekaran (India)
- PS-MM-2-2 Minimally invasive approach to adult spine deformity using minimally invasive stabilization (MIST) technique**
Takanori Saito (Japan)
- PS-MM-2-3 Use of halo pelvic traction in the treatment of severe proximal thoracic kyphoscoliosis secondary to neurofibromatosis**
Chris Yin Wei Chan (Malaysia)
- PS-MM-2-4 How to correct severe deformity in adults**
Mitsuru Yagi (Japan)
- PS-MM-2-5 Adjacent segment degeneration following lumbar spine surgery: prevalence, risk factors, prevention, and management**
Chi-Chien Niu (Taiwan)



PS-MM-2-6 Surgical management of scoliosis in type 1 neurofibromatosis - a multicentric study
Saumyajit Basu (India)

June 11 (Fri.)_501

8:45 - 9:45

Morning Seminar 1

Sponsored by Nippon Zoki Pharmaceutical Co., Ltd.

Moderator: Morio Matsumoto (Japan)

Live

MS-1-1 Minimally invasive spinal treatment: current and future prospects
Ken Ishii (Japan)

10:00 - 11:00

Symposium 3: Osteoporosis

(8 min Presentation + 2 min Discussion)

Moderators: Abdul Satar (Pakistan) / Ronald Paraguya Tangente (Philippines) / Hiroataka Haro (Japan)

Live On-demand

PS-SY-3-1 Treatment strategy for osteoporotic vertebral fracture
Ram Chaddha (India)

PS-SY-3-2 Revisiting conservative management of acute osteoporotic vertebral fractures (in the setting of COVID-19 pandemic)
Anne Kathleen Batto Ganai-Antonio (Philippines)

PS-SY-3-3 Strategies in the management of delayed union in osteoporotic vertebral compression fractures
Jose Manuel F. Ignacio (Philippines)

PS-SY-3-4 3-column osteotomy for kyphosis following osteoporotic vertebral fracture
Yu Yamato (Japan)

PS-SY-3-5 How to prevent the implant failure in osteoporotic patients?
Kotaro Nishida (Japan)

11:15 - 12:15

APSS Scoliosis Focus Group + JSS Joint Symposium

(8 min Presentation + 2 min Discussion)

Moderators: Mun Keong Kwan (Malaysia) / Daisuke Sakai (Japan)

Live On-demand

PS-JS-1 What is the goal of scoliosis surgery?
Leok Lim Lau (Singapore)

PS-JS-2 Brace treatment for adolescent idiopathic scoliosis: differences between past and present
Hideki Shigematsu (Japan)

PS-JS-3 Fusion level selection and strategy in adolescent idiopathic scoliosis
Shu-Hua Yang (Taiwan)

PS-JS-4 Long-term outcome of correction surgery for pediatric scoliosis patients
Kota Watanabe (Japan)

PS-JS-5 The direction of clinical research regarding adolescent idiopathic scoliosis in Asian countries: what can we do? & what should we prepare?
Jason Pui Yin Cheung (Hong Kong)



12:30 - 13:30

Luncheon Seminar 3

Sponsored by NuVasive Japan K.K.

Moderator: Manabu Ito (Japan)

Live

LS-3-1 Lumbar spinal canal stenosis from the viewpoint of basic science and clinical medicine
Nobuyuki Fujita (Japan)

13:45 - 14:45

Video on Key Surgical Techniques 1

(7 min Presentation + 3 min Discussion)

Moderators: Brian Hsu (Australia) / Wen-Tien Wu (Taiwan) / Manabu Ito (Japan)

Live On-demand

PS-VD-1-1 Long-term follow-up results after treatment of degenerative disease with cervical disc arthroplasty: a ten-year follow-up

Zhuojing Luo (China)

PS-VD-1-2 Mobi-C total disc replacement - surgical techniques and clinical outcomes -

Ken Ishii (Japan)

PS-VD-1-3 Redo anterior revision surgery for symptomatic anterior cervical pseudarthrosis

Torphong Bunmaprasert (Thailand)

PS-VD-1-4 Techniques for C1/2 fixation

Kenny Yat Hong Kwan (Hong Kong)

PS-VD-1-5 Anterior column realignment (ACR) technique

Hiroshi Taneichi (Japan)

PS-VD-1-6 Surgical techniques of total en bloc spondylectomy (TES)

Hideki Murakami (Japan)

15:00 - 15:30

Presidential Oration

(30 min Presentation)

Moderators: Morio Matsumoto (Japan) / K. Shanmugam Sivananthan (Malaysia)

Live On-demand

PS-PO-1 My life as a spine surgeon of lateral thinking

Shoichi Kokubun (Japan)

15:30 - 15:40

APSS Presidential Inauguration Ceremony

(10 min Presentation)

Live On-demand



15:40 - 15:45

Preview of APSS 2022 Annual Meeting

(5 min Presentation)

Live **On-demand**

- PS-PR-1** **Preview of APSS 2022**
Saumyajit Basu (India)

16:00 - 17:00

Symposium 4: Deformity

(8 min Presentation + 2 min Discussion)

Moderators: Rohit Pokharel Kumar (Nepal) / Dennis Hey (Singapore) / Gen Inoue (Japan)

Live **On-demand**

- PS-SY-4-1** **Selection of UIV & LIV in adult spinal deformity surgery -how to reduce complications**
Kyu-Jung Cho (Korea)
- PS-SY-4-2** **When and how to use novel techniques (ACR/OLIF) to achieve ideal lumbar lordosis for severe sagittal imbalance?**
Se-Jun Park (Korea)
- PS-SY-4-3** **Comparison of traditional iliac screw vs S2 alar iliac-screws (S2AI) vs subcrestal iliac screw in spinal deformity surgery**
Gabriel Liu (Singapore)
- PS-SY-4-4** **Predictors and clinical importance of postoperative coronal malalignment after surgery to correct adult spinal deformity**
Tetsuro Ohba (Japan)
- PS-SY-4-5** **Vertebral body tethering as the current non-fusion surgical option for scoliosis**
Mehmet Aydogan (Turkey)

17:15 - 18:15

Symposium 5: Surgical Complications

(8 min Presentation + 2 min Discussion)

Moderators: Rabindra L Pradhan (Nepal) / Udai De Silva (Sri Lanka) / Mitsuru Yagi (Japan)

Live **On-demand**

- PS-SY-5-1** **A case of paraplegia secondary to cement leakage from vertebroplasty**
Romel P. Estillore (Philippines)
- PS-SY-5-2** **Cervical complications and their prevention**
Nobuhiro Tanaka (Japan)
- PS-SY-5-3** **Prevention of surgical complications in OPLL of the cervical spine**
Ronald Paraguya Tangente (Philippines)
- PS-SY-5-4** **Does prophylactic bilateral C4-5 foraminotomy really prevent C5 palsy in open-door cervical laminoplasty?**
Wen-Tien Wu (Taiwan)
- PS-SY-5-5** **Adding-on in adolescent idiopathic scoliosis and how to avoid it**
Ajoy Prasad Shetty (India)



18:30 - 19:30

Symposium Innovation in Spine

(8 min Presentation + 2 min Discussion)

Moderators: Masaya Nakamura (Japan) / Takashi Kaito (Japan)

Live **On-demand**

- PS-SI-1** **Role and mechanism of condoliase for treatment of lumbar disc herniation**
Kazuhiro Chiba (Japan)
- PS-SI-2** **AI to diagnostic imaging of spine disease: estimating spinal alignment from the morphology of back's surface**
Kota Watanabe (Japan)
- PS-SI-3** **Usage of artificial intelligence for image assessment in osteoporotic vertebral fracture**
Shinji Takahashi (Japan)
- PS-SI-4** **Robotic intervention for rehabilitation after spine surgery**
Masashi Yamazaki (Japan)
- PS-SI-5** **Regenerative therapy for spinal cord injury using iPSCs**
Narihito Nagoshi (Japan)

Hands-on Seminars

June 11 (Fri.)_401

9:00 - 12:00

Hands-on Seminar 1

Sponsored by Johnson & Johnson

On-site **On-demand**

- HS-1-1** **Elastic nail hands-on seminar**

June 11 (Fri.)_402

15:30 - 16:30

Hands-on Seminar 2

Sponsored by Stryker Japan K.K.

On-site **On-demand**

- HS-2-2** **Cutting Academy -with Sonopet iQ new ultrasonic aspirator-**
Instructor: Tomohiko Hasegawa (Japan)



June 12 (Sat.)_501

8:45 - 9:45

Morning Seminar 3

Sponsored by KAKEN PHARMACEUTICAL CO., LTD.

Moderator: Kazuhiro Chiba (Japan)

Live

- MS-3-1 Early reaction of Condoliase for lumbar disc herniation**
Kenji Endo (Japan)
- MS-3-2 Development of CHase ABC (Condoliase) and its application for chemonucleolysis of lumbar disc herniation**
Hisashi Iwata (Japan)

10:00 - 11:00

Symposium 6: MISS and Spinal Instrumentation

(8 min Presentation + 2 min Discussion)

Moderators: Myint Thaung (Myanmar) / Muhammad Tariq Sohail (Pakistan) / Masashi Neo (Japan)

Live On-demand

- PS-SY-6-1 MIS options in degenerative spondylolisthesis: when do we decompress and when do we fuse?**
Arvind Gopalrao Kulkarni (India)
- PS-SY-6-2 How to avoid the neurological complications of PELD?**
Si-Young Park (Korea)
- PS-SY-6-3 Cervical pedicle screws; how to increase accuracy without navigation system or template**
Kota Suda (Japan)
- PS-SY-6-4 Oblique lumbar interbody fusion L5-S1 – indications, tips and video**
Reuben Soh (Singapore)
- PS-SY-6-5 Application of minimally invasive transforaminal lumbar interbody fusion (MIS-TLIF) in spinal deformities**
Wai Mun Yue (Singapore)

11:15 - 12:15

Video on Key Surgical Techniques 2

(7 min Presentation + 3 min Discussion)

Moderators: Khondker Abdul Awal (Bangladesh) / Yoshiharu Kawaguchi (Japan)

Live On-demand

- PS-VD-2-1 Full-endoscopic trans-kambin lumbar interbody fusion (fullendo KLIF) for degenerative spinal conditions**
Koichi Sairyo (Japan)
- PS-VD-2-2 Minimally invasive surgery with the use of spinal endoscope (MED) for lumbar foraminal stenosis**
Hiroshi Yamada (Japan)
- PS-VD-2-3 OLIF51**
Byung Joon Shin (Korea)
- PS-VD-2-4 Pedicle subtraction osteotomy using pedicle screws and kokubun dynamic correction hook system for lumbar degenerative kyphosis**
Hiroshi Ozawa (Japan)
- PS-VD-2-5 VCR**
Chung Chek Wong (Malaysia)



PS-VD-2-6 Correction of severe adolescent idiopathic scoliosis (AIS) with Cobb angle ≥ 90 degrees
Mun Keong Kwan (Malaysia)

12:30 - 13:30

Luncheon Seminar 5

Sponsored by Johnson & Johnson Ethicon/DePuy Synthes Spine

Moderator: Morio Matsumoto (Japan)

Live On-demand

LS-5-1 Spine surgery in an aging population
Kota Watanabe (Japan)

13:45 - 14:45

APSS-APPOS Combined Symposium

(8 min Presentation + 2 min Discussion)

Moderators: Yat Wa Wong (Hong Kong) / Hee-Kit Wong (Singapore) / Morio Matsumoto (Japan)

Live On-demand

J-SY-1 Challenge for extremely large scoliosis with severe and difficult disease
Masashi Takaso (Japan)

J-SY-2 Early onset scoliosis (EOS) - effectiveness of growing devices
Arvind Jayaswal (India)

J-SY-3 Congenital scoliosis
Keith DK Luk (Hong Kong)

J-SY-4 Knacks & pitfalls of the treatment for syndromic scoliosis
Haruhisa Yanagida (Japan)

14:45 - 14:55

Closing Remarks

Live



On-demand Only Program _APSS

APSS Fellowship Session (10 min Presentation)

- PS-FE-1 APSS medtronic fellowship 2018**
Nirmal Patil (India)
- PS-FE-2 APSS medtronic fellowship 2019**
Rommel Tan (Philippines)
- PS-FE-3 APSS-SICOT spine fellowship (Exchange program) - 2019**
S Dilip Chand Raja (India)
- PS-FE-4 APSS-Ganga hospital 2019**
Mohammad Abdul Hannan (Bangladesh)
- PS-FE-5 APSS-Ganga hospital 2019**
Tomohiro Banno (Japan)

Free Paper: Cervical Spine Degenerative Diseases (5 min Presentation)

- PS-FP-1-1 Long screws for spacer fixation without lateral mass drilling in double door laminoplasty (tiptoe technique)**
Ivan Sekiguchi (Japan)
- PS-FP-1-2 Fusion and subsidence rates of vertebral body sliding osteotomy: comparison of 3 reconstructive techniques for multilevel cervical myelopathy**
Sehan Park (Korea)
- PS-FP-1-3 Floating laminoplasty for the treatment of compressive myelopathy accompanied with C1 posterior ring hypoplasia**
Sang Yun Seok (Korea)
- PS-FP-1-4 The association between atlantoaxial instability and anomalies of vertebral artery and axis**
Chanwoong Byun (Korea)
- PS-FP-1-5 What is the risk of cervical deformity after posterior cervical decompression surgery?: a multicenter study**
Shin Oe (Japan)
- PS-FP-1-6 The effect of using lamina spacer on postoperative cervical alignment and range of motion in double-door laminoplasty**
Akinobu Matsushita (Japan)
- PS-FP-1-7 K-line (-) in the neck-flexed position negatively affects surgical outcome of expansive open-door laminoplasty for cervical spondylotic myelopathy**
Satoshi Nori (Japan)
- PS-FP-1-8 Preoperative severity of spinal cord compression and its restoration during the early postoperative period affect the development of C5 palsy**
Masahiro Mizutani (Japan)
- PS-FP-1-9 A multicentre, prospective, randomized controlled trial comparing efficacy and safety of ProDisc-C to anterior cervical discectomy and fusion for treatment of symptomatic cervical disc disease**
Naresh Kumar (Singapore)
- PS-FP-1-10 The impact of over-distraction on adjacent segment pathology and cage subsidence in anterior cervical discectomy and fusion with porous tantalum trabecular metal cages**
Chi-Chien Niu (Taiwan)
- PS-FP-1-11 Surgical outcome of cervical compressive myelopathy with mild severity -Investigation of patients with preoperative JOA score of 14.5 or above-**
Masahiro Ozaki (Japan)



- PS-FP-1-12 Do intra-operative neurophysiological changes impact functional outcome following decompressive surgery for cervical myeloradiculopathy? A prospective study**
Keyur Kantilal Akbari (India)
- PS-FP-1-13 Gap between flexion and extension range of motions: a novel indicator to predict the loss of cervical lordosis after laminoplasty for cervical spondylotic myelopathy**
Takashi Fujishiro (Japan)
- PS-FP-1-14 Decompression status of the spinal cord after cervical laminoplasty in various body positions and neck postures observed using percutaneous ultrasonography: relationship with neurological recovery**
Sachio Hayama (Japan)
- PS-FP-1-15 Does elevated mean-arterial pressure lead to better outcomes in degenerative cervical myelopathy? - a prospective, pilot randomized control trial**
Ayush Sharma (India)
- PS-FP-1-16 C6 radiculopathy can cause so-called C5 palsy -comparison to C5 radiculopathy-**
Takumi Tsubakino (Japan)
- PS-FP-1-17 Posterior hybrid technique for multi-level cervical spondylotic myelopathy with instability**
Hao Zhang (China)
- PS-FP-1-18 The feasibility study of cervical pedicle screwed with new individual-oriented template by 3D printing technology**
Hao Zhang (China)
- PS-FP-1-19 ACDF with cervical uncinectomy for cervical radiculopathy with foraminal stenosis**
Hao Zhang (China)
- PS-FP-1-20 Investigation of diagnostic imaging criteria for developmental stenosis based on cervical spondylotic myelopathy in young patients**
Tsuoyoshi Iida (Japan)
- PS-FP-1-21 Surgical strategy for the cervical kyphosis patients associated with cervical spondylolisthesis – three cases’ experience-**
Daichi Takahashi (Japan)
- PS-FP-1-22 Factors affecting postoperative complications and outcomes of cervical spondylotic myelopathy with cerebral palsy: a retrospective analysis**
Hyung Cheol Kim (Korea)
- PS-FP-1-23 Prediction of postoperative loss of lordosis using radiologic parameters after cervical laminoplasty according to disease entities**
Hyeongseok Jeon (Korea)
- PS-FP-1-24 A meta analysis of the efficacy of botulinum toxin a and occupational therapy versus occupational therapy alone in children with upper limb spastic cerebral palsy**
Alice Chu (USA)
- PS-FP-1-25 Comparison of clinical outcomes of laminoplasty alone versus laminoplasty with foraminotomy in patients with cervical spondylotic myelopathy**
Umair Ahmad Zaheer (Pakistan)
- PS-FP-1-26 Modified kurukawa cervical laminoplasty using iliac crest bone graft as spacers - why to do it any other way?**
Aashish Babanrao Ghodke (United Kingdom)
- PS-FP-1-27 Preoperative transverse area of spinal cord compression using quantitative magnetic resonance imaging in surgically treated cervical spondylotic myelopathy: a descriptive study**
Jon Christian Sanga Manuntag (Philippines)
- PS-FP-1-28 Impact of cervical alignment for prognosis of cervical spondylotic amyotrophy – propensity score matching analysis –**
Masahito Takahashi (Japan)



- PS-FP-1-29 Usefulness of the disabilities of the arm, shoulder, and hand in evaluating surgical outcome of cervical spine disorders**
Nao Otomo (Japan)
- PS-FP-1-30 The posterolaterally oriented and laterally downward sloping facet joint is a risk factor for degenerative cervical spondylolisthesis and myelopathy**
Hiromi Kumamaru (Japan)
- PS-FP-1-31 Analysis of the electromyographic activity of the masticatory muscles of individuals with degenerative diseases of the intervertebral discs**
Flavia Argentato Cecilio (Brazil)
- PS-FP-1-32 Impact of intervertebral disc degenerations on the bite force and thickness of the masticatory muscles of adult subjects**
Nicole Barbosa Bettiol (Brazil)
- PS-FP-1-33 Accuracy of the adjustable aiming device for caspar pin insertion in anterior cervical spine surgery: human cadaveric study**
Torphong Bunmaprasert (Thailand)
- PS-FP-1-34 The natural history of patients with cervical radiculopathy treated conservatively and correlating with clinical and MRI features after a mean follow-up of 33 months**
Gowtham Ranga Sai Jallipalli (India)
- PS-FP-1-35 Is cervical posterior fixation effective for neck pain?**
Takeo Furuya (Japan)
- PS-FP-1-36 Incidence, prevalence and clinical significance of modic changes in cervical spine- a prospective study**
Dilip Chand Raja Soundararajan (India)
- PS-FP-1-37 Efficacy of ultrasound-guided nerve root block for cervical spondylotic C6 radiculopathy**
Shinichi Ishihara (Japan)

Free Paper: Thoracic and Lumbar Spine Degenerative Diseases (5 min Presentation)

- PS-FP-2-1 Spinal column phenotypes with lumbar developmental spinal stenosis - results from 2387 MRIs**
Jason Pui Yin Cheung (Hong Kong)
- PS-FP-2-2 Increased population risk of radicular leg pain in lumbar developmental spinal stenosis**
Jason Pui Yin Cheung (Hong Kong)
- PS-FP-2-3 Effects of bone cement augmentation for upper instrumented vertebra on adjacent segment degeneration in lumbar fusions**
Young-Hoon Kim (Korea)
- PS-FP-2-4 Indirect decompression of the lumbar spinal canal in severe degenerative lumbar canal stenosis is possible from posterior approach**
Ivan Sekiguchi (Japan)
- PS-FP-2-5 The problems and measures of L5 osteotomy**
Takashi Kobayashi (Japan)
- PS-FP-2-6 Natural history of lumbar degenerative kyphosis : progression of clinical symptoms and radiological parameters over long-term follow-up (minimum 5 years follow up)**
Jae Won Lee (Korea)
- PS-FP-2-7 Spinal endoscopic-full see technique for the treatment of two-level lumbar lateral recess stenosis**
En Song (China)
- PS-FP-2-8 Effect of spinal sagittal imbalance on functional disability in patients with degenerative spondylolisthesis**
Karthik Raghunatha Reddy (India)
- PS-FP-2-9 A novel and low cost modality for osteoporotic vertebral compression fracture fixation: sublaminar mersilene tape augmented pedicle screws fixation**
Ghanshyam Kakadiya (India)



- PS-FP-2-10 Multi-rod constructs in thoracolumbar spine: technique, indications and outcomes**
Vishal Manharkumar Dindod (India)
- PS-FP-2-11 Five-year postoperative good outcomes after facet fusion using a percutaneous pedicle screw system for degenerative lumbar spondylolisthesis**
Tomohiro Miyashita (Japan)
- PS-FP-2-12 The role of gut-skin-spine axis in the establishment and evolution of human intervertebral disc microbiome and degenerative disc disease**
Dilip Chand Raja Soundararajan (India)
- PS-FP-2-13 The catastrophization effects of an MRI report on the patient and surgeon and the benefits of 'clinical reporting'**
Dilip Chand Raja Soundararajan (India)
- PS-FP-2-14 Sub-clinical infection can be an initiator of inflammaging leading to degenerative disc disease – evidence from host defense response mechanisms**
Dilip Chand Raja Soundararajan (India)
- PS-FP-2-15 Dynamic ultrasound imaging of lumbar multifidus for assessment of lumbar spinal muscles**
Yongsoo Choi (Korea)
- PS-FP-2-16 Examination of surgical procedure for lower lumbar osteoporotic vertebral body fractures**
Yuji Kasukawa (Japan)
- PS-FP-2-17 Clinical relationship between spinopelvic alignment and lumbar spinal canal stenosis in patients with rheumatoid arthritis**
Shunsuke Ito (Japan)
- PS-FP-2-18 Lumbar disc degeneration and vertebral fracture at thoracolumbar junction are risk factors for chronic low back pain with disability: the Wakayama Spine Study**
Hiroshi Hashizume (Japan)
- PS-FP-2-19 Risk factors for cage retropulsion after transforaminal lumbar interbody fusion in older patients**
Nan Li (China)
- PS-FP-2-20 AGEs are associated with the intensity of back pain symptoms in patients with lumbar spinal stenosis**
Masatoshi Teraguchi (Japan)
- PS-FP-2-21 Patient-reported outcome of lower extremity improved after posterior decompression and lumbar interbody fusion for degenerative lumbar diseases**
Sung-Min Kim (Korea)
- PS-FP-2-22 Prevalence and characteristics of osteoporotic vertebral fracture in elderly patients with sagittal imbalance**
Akito Yabu (Japan)
- PS-FP-2-23 Clinico-radiological outcomes of the transforaminal lumbar interbody fusion vs oblique lumbar interbody fusion and Spinopelvic sagittal balance in degenerative lumbar spondylolisthesis**
Ghanshyam Kakadiya (India)
- PS-FP-2-24 Prevalence of diffuse idiopathic skeletal hyperostosis in the general elderly population: a Japanese cohort survey randomly sampled from a basic resident registry**
Masashi Uehara (Japan)
- PS-FP-2-25 The resurgence of CT myelogram using HRCT with dynamic oblique reconstruction in the age of MRI**
Keyur Kantilal Akbari (India)
- PS-FP-2-26 Effect of segmental lordosis on early-onset adjacent segment disease after PLIF**
Shinya Okuda (Japan)
- PS-FP-2-27 Facet joint opening on CT is a predictor for poor clinical outcomes after less-invasive decompression surgery for lumbar spinal stenosis**
Kentaro Yamada (Japan)



- PS-FP-2-28 Impact of knee osteoarthritis on surgical outcomes of lumbar spinal canal stenosis**
Masahiro Ozaki (Japan)
- PS-FP-2-29 Osseous union after posterior lumbar interbody fusion -pay attention to large interbody angle-**
Keichi Nakai (Japan)
- PS-FP-2-30 Symptomatic post-surgical lumbar pseudomeningocele treated by ultrasound guided blood patch application-a case report**
Rohit Akshay Kavishwar (India)
- PS-FP-2-31 Titanium (TI) cages may be superior to polyetheretherketone (PEEK) cages in lumbar interbody fusion: a systematic review and meta-analysis of clinical and radiological outcomes**
Jun-Hao Tan (Singapore)
- PS-FP-2-32 Risk factors for postoperative ileus after oblique lateral interbody fusion: a multivariate analysis**
Sung Cheol Park (Korea)
- PS-FP-2-33 10-year longitudinal MRI study of Intervertebral disc degeneration in patients with lumbar spinal canal stenosis after posterior lumbar decompression surgery**
Takeshi Fujii (Japan)
- PS-FP-2-34 Pre-operative chronic opioid use relates to poor outcome of spine surgery: a nationwide study**
Yu-Han Chen (Taiwan)
- PS-FP-2-35 Correlation between clinical scoring systems and quantitative mri parameters in degenerative lumbar spinal stenosis**
Tungish Bansal (India)
- PS-FP-2-36 A rare case of idiopathic dorsal spinal cord herniation perforating the lamina**
Kento Yamanouchi (Japan)
- PS-FP-2-37 Discogenic low back pain can be diagnosed with an ultrasonographic-guided disc pain induction test**
Keisuke Masuda (Japan)
- PS-FP-2-38 Degenerative lumbar spondylolisthesis patients with movement-related low back pain have less postoperative satisfaction after decompression alone**
Ryosuke Hirota (Japan)
- PS-FP-2-39 Extraforaminal stenosis at L2-L3 treated with microendoscopic surgery: report of two cases**
Arihiko Tsukamoto (Japan)
- PS-FP-2-40 Giant thoracic disc herniation surgery**
Isao Kitahara (Japan)
- PS-FP-2-41 Contiguous level disc degeneration and its association with other spinal phenotypes in patients with prolapsed lumbar discs- an MRI study**
Uruj Zehra (Pakistan)
- PS-FP-2-42 Occurrence rate of sacroiliac joint disorders before and after lumbar surgeries and treatment strategies**
Daisuke Kurosawa (Japan)
- PS-FP-2-43 Technical pitfalls during sacroiliac joint arthrodesis for patients with sacral dysmorphism induced by lumbosacral transitional vertebrae**
Daisuke Kurosawa (Japan)
- PS-FP-2-44 Prediction of lumbar lordosis in the normal population: a predictive formula for ideal lumbar lordosis**
Changwei Yang (China)
- PS-FP-2-45 Role of thoracic kyphosis and pelvic incidence on compensation for the sagittal balance in low-grade spondylolisthesis**
Changwei Yang (China)
- PS-FP-2-46 Analysis of revision surgery for symptomatic adjacent segment diseases after lumbar fusion using JOABPEQ**
Satoshi Suzuki (Japan)



- PS-FP-2-47 Influence of comorbid knee osteoarthritis on surgical outcome and sagittal spinopelvic/lower-extremity alignment in elderly patients with degenerative lumbar spondylolisthesis undergoing transforaminal lumbar interbody fusion**
Motonori Kohno (Japan)
- PS-FP-2-48 Association between lumbar segmental mobility and intervertebral disc degeneration quantified by magnetic resonance imaging T2 mapping**
Izaya Ogon (Japan)
- PS-FP-2-49 Diagnostic performance of conventional two-dimensional MRI for L5-S foraminal stenosis**
Kohei Takahashi (Japan)
- PS-FP-2-50 The longitudinal analysis to determine whether the presence of current sexual activities among elderly people affect low back pain or not**
Shoichiro Ohyama (Japan)
- PS-FP-2-51 ULIF versus conventional PLIF for 2 lumbosacral segment : clinical and radiological outcomes of one-year follow-up**
Seung-Hyun Choi (Korea)
- PS-FP-2-52 Influence of degenerative diseases of intervertebral discs on masticatory efficiency**
Claire Genoveze Gauch (Brazil)
- PS-FP-2-53 How the novel modular spine blocks affect the adjacent lumbar spine on finite element analysis?**
Jui-Yang Hsieh (Taiwan)
- PS-FP-2-54 Epidemiology and burden of osteoporotic patients with spine fusion procedures with pedicle screws in Japan: a nationwide claim database analysis**
Kotaro Nishida (Japan)
- PS-FP-2-55 Short segmental lumbar surgery improves health-related quality of life without limiting activities of daily living: a retrospective study**
Ryota Kimura (Japan)
- PS-FP-2-56 Coronal MRI for diagnosis of lumbar foraminal stenosis – a comparative study of reliability, reproducibility and interpretation between T1 and T2-weighted images**
Ko Hashimoto (Japan)
- PS-FP-2-57 Analysis of multicentric vertebroplasty data regarding subsequent vertebral fractures, cement leakage and correlation to BMD**
Gokul Hirachand Bandagi (India)
- PS-FP-2-58 Intradiscal Vacuum Phenomenon (IDVP): radiological factors to predict the selective appearance and a new morphological classification system**
Swapnil Sanjay Hajare (India)
- PS-FP-2-59 A two-year outcome of various techniques of discectomy; a multicentric retrospective study**
praveen Vnr Goparaju (India)
- PS-FP-2-60 The characteristics of degenerative disc disease - Pfirrmann vs Thompson grading systems**
Kamil Krupa (Poland)
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- PS-FP-6-16 The utility of minimal access and seperation surgery in the management of metastatic spine disease**
Jiong Hao Tan (Singapore)
- PS-FP-6-17 International external validation of the sorg machine learning algorithms for predicting 90-day and 1-year survival of patients with spine metastases using a Taiwanese cohort**
Jiun-Jen Yang (Taiwan)
- PS-FP-6-18 Do aggressive vertebral hemangiomas warrant aggressive surgery? Inferences from a retrospective surgical cohort of 23 patients**
Guna K. Pratheep (India)

Free Paper: Spine Infection (5 min Presentation)

- PS-FP-7-1 Predicting neurological deficit in patients with spinal tuberculosis – a single center retrospective cae-control study**
Samarth Mittal (India)
- PS-FP-7-2 Micro-organisms and outcome of spinal infections – a report of 48 cases**
Quang Minh Luong (Viet Nam)
- PS-FP-7-3 Efficacy of the all posterior surgical approach for thoracolumbar spinal tuberculosis with kyphosis in paediatric patients: a prospective study**
Ghanshyam Kakadiya (India)
- PS-FP-7-4 Effectiveness of betadine wound irrigation and intrawound vancomycin powder to reduce surgical site infection in posterior lumbar spine surgery**
Ghanshyam Kakadiya (India)
- PS-FP-7-5 Efficacy of posterior approach surgery for thoracic spine tuberculosis in neurological deficit patients**
Ghanshyam Kakadiya (India)
- PS-FP-7-6 A validated score for evaluating spinal instability to assess surgical candidacy in active spinal tuberculosis - an evidence-based approach and multinational expert consensus study**
Dilip Chand Raja Soundararajan (India)
- PS-FP-7-7 Clinical, radiological and microbial profile of pyogenic spondylodiscitis — single center data analysis of 48 patients**
Dheeraj Manikanta Maddali (India)
- PS-FP-7-8 Treatment results of percutaneous posterior lumbar pelvic fusion for lower lumbar purulent / tuberculous discitis**
Yuji Kasukawa (Japan)
- PS-FP-7-9 Trends in infectious spondylitis from 2000 to 2020**
Shinji Tanishima (Japan)
- PS-FP-7-10 Status and trends of causative bacteria of surgical site infection in spinal surgery- a study on 6411 cases-**
Takahito Iga (Japan)
- PS-FP-7-11 Gene Xpert/MTB RIF Assay for spinal tuberculosis**
Siddharth Aiyer (India)
- PS-FP-7-12 Does forced-air warming increase surgical site infections in spine surgery? A propensity score-matched analysis**
Kyoichi Handa (Japan)



- PS-FP-7-13 "Spine Surgery Checklist" a step towards perfection through protocols**
Jwalant Y Patel (India)
- PS-FP-7-14 Analysis of clinical features regarding concomitant spinal and non-spinal osteoarticular infections**
Ryunosuke Fukushi (Japan)
- PS-FP-7-15 Consecutive occurrence of septic arthritis and pyogenic spondylitis in two patients**
Ryunosuke Fukushi (Japan)
- PS-FP-7-16 A case of glossopharyngeal and hypoglossal nerve paralysis secondary to pyogenic cervical facet joint arthritis**
Ryunosuke Fukushi (Japan)
- PS-FP-7-17 Clinical significance of comprehensive medicine for the treatment of pyogenic spondylitis in the elderly**
Hidekazu Yoshizaki (Japan)
- PS-FP-7-18 Withdrawn**
- PS-FP-7-19 Tuberculous osteomyelitis of the ischium- a case report and review of literature**
Chandhan Murugan (India)
- PS-FP-7-20 Combined anteroposterior debridement and decompression for the treatment of infective spondylitis through single stage posterior approach**
Abdul Satar (Pakistan)
- PS-FP-7-21 Characterization of biofilms in explanted pedicle screws retrieved from aseptic pseudarthrosis cases**
Daksh Jayaswal (USA)
- PS-FP-7-22 How does the absence or presence of pedicle screw guard effect bacterial contamination at the screw-bone interface during spinal fusion; a multicenter study**
Daksh Jayaswal (USA)
- PS-FP-7-23 Poor nutritonal status and chronic kidney disease might be risk factors in elderly patients with pyogenic spondylitis**
Erina Yamada (Japan)
- PS-FP-7-24 Evaluating reprocessed pedicle screws: characterization of contaminants and efficiency of the process**
Daksh Jayaswal (USA)
- PS-FP-7-25 The effect of spinopelvic parameters on anterior bone graft subsidence in surgical treatment of pyogenic lumbar spondylodiscitis**
Meng-Huang Wu (Taiwan)
- PS-FP-7-26 All-posterior approach in surgical management of thoracolumbar tuberculosis; a prospective randomised study comparing posterior-only stabilisation versus global reconstruction**
Rohit Akshay Kavishwar (India)
- PS-FP-7-27 Development of Tuberculosis Spine Instability Score (TSIS): an evidence-based and expert consensus-based content validation study among spine surgeons**
Kaustubh Ahuja (India)

Free Paper: Ligamentous Ossification (5 min Presentation)

- PS-FP-8-1 The characteristics of the young patients with cervical ossification of the posterior longitudinal ligament of the spine: a multicenter cross-sectional study**
Kanji Mori (Japan)
- PS-FP-8-2 Reduction and fusion of thoracic ossification of the posterior longitudinal ligament after posterior decompression with instrumented fixation by pedicle screw insertion into all ossified vertebrae**
Osamu Kawano (Japan)



- PS-FP-8-3 Does diabetes affect the surgical outcomes in cases with cervical ossification of the posterior longitudinal ligament? a multicenter study from Asia Pacific Spine Study Group**
Narihito Nagoshi (Japan)
- PS-FP-8-4 Investigation and validation of deep learning algorithms to identify cervical ossification of posterior longitudinal ligaments on radiography**
Koji Tamai (Japan)
- PS-FP-8-5 Comparison of decompression alone and decompression plus fusion for thoracic myelopathy due to ossification of the ligamentum flavum**
Yuichi Ono (Japan)
- PS-FP-8-6 Use of residual neural network for the detection of ossification of the posterior longitudinal ligament on plain cervical radiography**
Kazuma Murata (Japan)
- PS-FP-8-7 Factors having significant relationship with postoperative neck pain deterioration for cervical ossification of the posterior longitudinal ligament: prospective registry study**
Masao Koda (Japan)
- PS-FP-8-8 Characteristics of ossification of the ligamentum flavum of the thoracic spine**
Masatoshi Morimoto (Japan)
- PS-FP-8-9 Anterior decompression through a posterior approach for thoracic OPLL: a novel concept in anterior decompression and the preliminary outcomes**
Haruo Kanno (Japan)

Free Paper: Upper Cervical Disorder (5 min Presentation)

- PS-FP-9-1 A case of compressive cervical myelopathy by persistent first intersegmental artery: five years outcome after surgery**
Takuro Endo (Japan)
- PS-FP-9-2 Successful closed reduction of atlantoaxial rotatory fixation in children —a retrospective study of 30 patients**
Zhiqiang Zhang (China)
- PS-FP-9-3 Posterior spinal fusion with pedicle screws for atlantoaxial instability in children**
Kohei Kuroshima (Japan)
- PS-FP-9-4 Biologic agents preserve the C-2 pedicle in patients with rheumatoid arthritis: a comparative imaging study using three-dimensional computed tomography**
Takuya Obo (Japan)
- PS-FP-9-5 Non-traumatic atlantoaxial rotatory fixation in an adult patient treated by a closed reduction under general anesthesia in chronic phase**
Norihiro Isogai (Japan)

Free Paper: Minimal Invasive Spine Surgery (5 min Presentation)

- PS-FP-10-1 The ipsilateral epiphyseal and central endplate hounsfield units accurately predicts intraoperative endplate violation and delayed cage subsidence with oblique lateral interbody fusion**
Jason Pui Yin Cheung (Hong Kong)
- PS-FP-10-2 Arthroscope assisted transpedicular approach for spinal cord decompression**
Ghanshyam Kakadiya (India)
- PS-FP-10-3 A new full endoscopy system and intradiscal irrigator combined with a novel annular repair device for the treatment of lumbar disc herniation**
En Song (China)
- PS-FP-10-4 A novel annular repair technique combined with platelet-rich plasma intradiscal injection : a new serial therapeutic model for the treatment of lumbar disc herniation**
En Song (China)



- PS-FP-10-5 Overcorrection of fractured vertebrae increases the incidence of adjacent fractures after balloon kyphoplasty: a retrospective study**
Keiichiro Iida (Japan)
- PS-FP-10-6 Pros and cons of full endoscopic surgery for cervical radiculopathy**
Kuniyoshi Tsuchiya (Japan)
- PS-FP-10-7 Functional outcomes of loupe assisted discectomy in patients with lumbar disc herniation**
Shehar Yar Abid (Pakistan)
- PS-FP-10-8 Indirect neural decompression by transforaminal lumbar interbody fusion using minimally invasive spine surgery for lumbar degenerative spondylolisthesis: comparison with lateral lumbar interbody fusion**
Ichiro Torigoe (Japan)
- PS-FP-10-9 Transforaminal full-endoscopic discectomy for the patients with down-migrated lumbar disc herniation under local anesthesia**
Fumitake Tezuka (Japan)
- PS-FP-10-10 Transforaminal full-endoscopic ventral facetectomy: mid-term results and factors associated with fair/poor outcome**
Kazuya Kishima (Japan)
- PS-FP-10-11 Unintentional facet fusion without bone grafting after minimally invasive lumbar interbody fusion: a retrospective study of percutaneous endoscopic transforaminal lumbar interbody fusion**
Katsuhisa Yamada (Japan)
- PS-FP-10-12 The advantages of revisional transforaminal full-endoscopic spine surgery for patients underwent posterior spine surgery**
Kiyoshi Yagi (Japan)
- PS-FP-10-13 Risk assessment of abdominal and retroperitoneal organ injuries performing transforaminal full-endoscopic spine surgery**
Kiyoshi Yagi (Japan)
- PS-FP-10-14 Is bipolar release of sternocleidomastoid muscle necessary for neglected congenital muscular torticollis?**
Haruki Funao (Japan)
- PS-FP-10-15 Usefulness and problems of the double endplates penetrating screw (DEPS) technique for patients with diffuse idiopathic skeletal hyperostosis**
Takumi Takeuchi (Japan)
- PS-FP-10-16 Clinical outcomes of minimally invasive posterior decompression for lumbar spinal stenosis with degenerative spondylolisthesis**
Yuto Kobayashi (Japan)
- PS-FP-10-17 Comparison of interlaminar and transforaminal approaches for treatment of L5/S1 disc herniation by percutaneous endoscopic discectomy**
Aiguo Gao (China)
- PS-FP-10-18 Percutaneous Transforaminal Endoscopic Surgery (PTES) and OLIF with self-lock cage for surgical treatment of L5 spondylolisthesis**
Yutong Gu (China)
- PS-FP-10-19 Prospective comparative study of outcome of dural tear in open vs minimally invasive spine surgery in patients with degenerative lumbar pathologies**
Ayush Sharma (India)
- PS-FP-10-20 Full endoscopic posterior cervical foraminotomy under lateral decubitus position with local anesthesia**
Do Hyeong Lim (USA)
- PS-FP-10-21 Three-year clinical outcomes after minimally invasive sacroiliac joint arthrodesis using triangular implants in Japan: a pilot study of five cases**
Daisuke Kurosawa (Japan)



- PS-FP-10-22 Functional outcome of endoscopic interlaminar lumbar discectomy**
Ihsan Ullah (Pakistan)
- PS-FP-10-23 Comparison of applied anatomy at L4-L5 and L5-S1 in context of tubular decompression for lumbar canal stenosis**
Sanjeev Asati (India)
- PS-FP-10-24 Does prophylactic use of topical gelatin-thrombin matrix sealant affect postoperative drainage volume and hematoma formation after microendoscopic spine surgery?: a randomized controlled trial**
Masanari Takami (Japan)
- PS-FP-10-25 Withdrawn**
- PS-FP-10-26 Comparison between clinical outcomes of simultaneous parallel anterior and posterior combined lumbar spine surgery using intraoperative 3D fluoroscopy-based navigation (SPAPS) and MI-PLIF/TLIF**
Tomohiko Hirose (Japan)
- PS-FP-10-27 Evaluation of cement leakage using computed tomography after balloon kyphoplasty -comparison between patients underwent within 4weeks and patients underwent after 4weeks –**
Hiroyuki Yasuda (Japan)
- PS-FP-10-28 Decompression procedure using unilateral biportal endoscopy (UBE) for thoracic myelopathy caused by ossification of the ligamentum flavum : a technical note and preliminary clinical results**
Seung-Hyun Choi (Korea)
- PS-FP-10-29 Treatment results of minimally invasive lateral lumbar disc herniated disk in our department**
Yoshikazu Yanagisawa (Japan)
- PS-FP-10-30 Withdrawn**
- PS-FP-10-31 Effectiveness of foraminoplasty in transforaminal full-endoscopic discectomy for L5-S1 disc herniation under local anesthesia**
Takashi Inokuchi (Japan)
- PS-FP-10-32 Examination of radiation exposure in lateral lumbar fusion surgery using intraoperative CT navigation**
Satoshi Nomura (Japan)
- PS-FP-10-33 The efficacy of epiduroscopic adhesiolysis on failed back surgery syndrome**
Osman Yağız Atlı (Turkey)
- PS-FP-10-34 Retrospective study of clinical and radiological outcomes of MIS TLIF for high-grade spondylolisthesis: series of 24 patients with 2 year follow up**
Rajendra Sakhrekar (India)

Free Paper: Robotic and Computer Assisted Spine Surgery

(5 min Presentation)

- PS-FP-11-1 Comparative study for navigated drill and navigated probe for cervical pedicle screw insertion**
Tomoyuki Takigawa (Japan)
- PS-FP-11-2 Accuracy of pedicle screw placement in early onset scoliosis using intraoperative CT and image-guided navigation**
Takuya Jimura (Japan)
- PS-FP-11-3 C-arm free lumbar interbody fusion**
Keisuke Nakano (Japan)
- PS-FP-11-4 Robot-assisted minimally invasive transforaminal lumbar interbody fusion in the treatment of lumbar spondylolisthesis**
Guanyu Cui (China)



PS-FP-11-5 **Withdrawn**

PS-FP-11-6 **Comparison between machine-vision image guided surgery system and robotic guidance system for paediatric idiopathic scoliosis spine surgery**

Kevin Lim (Singapore)

PS-FP-11-7 **Safety of pin insertion position for iliac reference guide in spinal navigation**

Hiroaki Murakami (Japan)

PS-FP-11-8 **O arm navigation assisted MIS TLIF for degenerative lumbar disease-study of 83 patients**

Rajendra Sakhrekar (India)

Free Paper: Spine Non-fusion Technology

(5 min Presentation)

PS-FP-12-1 **Effectiveness of nitinol in motion-preserving stabilization of lumbar spine**

Arkadii Kazmin (Russian Federation)

PS-FP-12-2 **Is there a place for surgical repair in adults with spondylolysis or grade I spondylolisthesis? – a systematic review and treatment algorithm**

Naresh Kumar (Singapore)

PS-FP-12-3 **A new surgical strategy for type1 Modic change using transforaminal full-endoscopic disc cleaning (FEDC) surgery**

Kazuya Kishima (Japan)

PS-FP-12-4 **Efficacy of anterior vertebral body tethering in skeletally mature children with adolescent idiopathic scoliosis: a preliminary report**

Keyur Kantilal Akbari (India)

PS-FP-12-5 **Fatigue wear test and biological response of a posterior dynamic stabilization system of spine using polyethylene with vitamin E**

Koji Matsumoto (Japan)

PS-FP-12-6 **Does vertebral body tethering cause disc and facet joint degeneration? an MRI study with minimum 2-years follow-up**

Caglar Yilgor (Turkey)

PS-FP-12-7 **Is thoracoscopic VBT a pulmonary function declining or improving surgery?**

Caglar Yilgor (Turkey)

PS-FP-12-8 **2 to 5-years follow-up results after thoracoscopic VBT: a single surgeon's experience**

Caglar Yilgor (Turkey)

PS-FP-12-9 **Clinical and radiographic outcome at 7 years of follow-up after cervical total disc replacement**

Kushal Ramesh Gohil (India)

Free Paper: Basic Research of Spine Surgery

(5 min Presentation)

PS-FP-13-1 **Fully-automated deep learning prediction of spinal deformity alignment irrespective of image quality obtained via smartphone photographs**

Jason Pui Yin Cheung (Hong Kong)

PS-FP-13-2 **Diabetes mellitus a risk factor for the development of the lumbar canal stenosis**

Ghanshyam Kakadiya (India)

PS-FP-13-3 **Evaluation of the basal metabolism of degenerative lumbar intervertebral discs based on pfirmann grade and presence of instability**

Chaiyapruk Pundee (Thailand)

PS-FP-13-4 **Basal and cytokine-stimulated biomarker production by degenerative lumbar discs from microdiscectomy versus interbody fusion patients**

Chaiyapruk Pundee (Thailand)

PS-FP-13-5 **Ubiquitin mediated proteasome degradation leading to glutamic acid accumulation could be the cause for poor clinical outcomes in patients with modic changes**

Dilip Chand Raja Soundararajan (India)



- PS-FP-13-6 Histopathological and cytogenetic analysis of lumbar epidural lipomatosis**
Taketoshi Yasuda (Japan)
- PS-FP-13-7 Prolonged use of narcotics after spine surgery: a requirement or a privilege**
Muhammad Tahir Karim (Pakistan)
- PS-FP-13-8 Posterior rod strain in a long spinal fusion to the pelvis: an in -vitro experimental study using synthetic lumbopelvic bone models**
Shunji Tsutsui (Japan)
- PS-FP-13-9 The possible involvement of the oxidized LDL/LOX-1 system in ligamentum flavum hypertrophy in the patients with lumbar spinal canal stenosis**
Sota Nagai (Japan)
- PS-FP-13-10 Time course of changes in reactive oxygen metabolites (ROM) as a serum oxidative stress marker to predict outcomes for surgical treatment of cervical compression myelopathy**
Hiroshi Takahashi (Japan)
- PS-FP-13-11 The longitudinal impact of intervertebral disc distraction on disc health -a preliminary, in vivo study using magnetic resonance imaging in a rabbit model**
Wing Moon Raymond Lam (Singapore)
- PS-FP-13-12 Laser resonance frequency analysis of pedicle screw stability: a cadaveric model bone study**
Daisuke Nakashima (Japan)
- PS-FP-13-13 Comparison between revision rod system and conventional method for the revision extension of fusion surgery in thoracolumbar spine: matched cohort study**
Yung-Hun Youn (Korea)
- PS-FP-13-14 Do academic pediatric orthopaedists who treat spine receive increased industry funding?**
Alice Chu (USA)
- PS-FP-13-15 The efficacy of C5a receptor antagonist for human iPSC-derived neural stem/progenitor cell transplantation in the injured spinal cord of mice**
Reo Shibata (Japan)
- PS-FP-13-16 Cytokine changes cultured cells harvested from cervical spine of patients with ossification of the posterior longitudinal ligament**
Hideki Saito (Japan)
- PS-FP-13-17 Automatic recognition of whole spine sagittal alignment and curvature analysis through a deep learning technique**
Yu-Jui Huang (Taiwan)
- PS-FP-13-18 U-NET based spondylolisthesis recognition for lumbar X-ray images**
Giam Minh Trinh (Taiwan)
- PS-FP-13-19 Prognosis of iatrogenic spinal cord injury at a major rehabilitation centre in United Kingdom**
Aashish Babanrao Ghodke (United Kingdom)
- PS-FP-13-20 Opioid free analgesia in posterior lumbar fusion surgery to enhance recovery**
Aashish Babanrao Ghodke (United Kingdom)
- PS-FP-13-21 Increased expression of bone morphogenetic protein 2 in intervertebral discs with vertebral endplate defects**
Uruj Zehra (Pakistan)
- PS-FP-13-22 In vivo biomechanical response characteristic curve in Lenke type I adolescent idiopathic scoliosis**
Changwei Yang (China)
- PS-FP-13-23 Accelerated recovery protocol following posterior spinal fusion for adolescent idiopathic scoliosis (AIS) leading to early hospital discharge**
Teddy Suratos Fabila (Singapore)
- PS-FP-13-24 How much experience is required to acquire the skills for spinal surgery? Results of a survey of spine surgeons**
Ryunosuke Fukushi (Japan)



- PS-FP-13-25 Novel in vivo imaging system of grafted human ips cell-derived neuron activity after spinal cord injury**
Kentaro Ago (Japan)
- PS-FP-13-26 Paraspinal myopathy-induced intervertebral disc degeneration and thoracolumbar kyphosis in TSC1mKO mice model**
CHLOE XIAOYUN CHAN (Singapore)
- PS-FP-13-27 Comparison of the global sagittal alignment and surgical outcomes for osteoporotic vertebral body fracture between lower lumbar and thoracolumbar area**
Tomoya Matsuo (Japan)
- PS-FP-13-28 Comparison of the stability and osseointegration of different intravertebral fixators**
Jui-Yang Hsieh (Taiwan)
- PS-FP-13-29 Do ovariectomy and calcium-restricted diets create osteoporosis in porcine model?**
Jui-Yang Hsieh (Taiwan)
- PS-FP-13-30 Consideration of cryopreservation solutions and methods of nucleus pulposus cells for industrialization**
Kosuke Sako (Japan)
- PS-FP-13-31 Clinical efficacy of ultrasound guided bilateral erector spinae block for single level lumbar fusion surgery: a prospective, randomized, case-control study**
Chandhan Murugan (India)
- PS-FP-13-32 The effect of anti-RANKL monoclonal antibody on spinal fusion in a mouse spinal fusion model**
Soji Tani (Japan)
- PS-FP-13-33 Biomechanical solution of broken pedicle during screws implantation**
Ming-Kai Hsieh (Taiwan)
- PS-FP-13-34 Efficacy of hiPSC-gliogenic NS/PCs for transplantation in the chronic phase of spinal cord injury**
Yasuhiro Kamata (Japan)
- PS-FP-13-35 Intra-operative prevention of epidural scar-adhesive processes after lumbar discectomy**
Sergey Sergeevich Annenkov (Russian Federation)
- PS-FP-13-36 A retrospective audit of effectiveness and reliability of telemedicine consultations in patients with spinal ailments**
Rohit Akshay Kavishwar (India)
- PS-FP-13-37 Diffusion tensor imaging with fiber tracking provides a valuable quantitative and clinical evaluation for compressed lumbosacral nerve roots**
Bo Han (China)
- PS-FP-13-38 Suramin attenuates intervertebral disc degeneration by inhibiting NF- κ B signaling pathway**
Shih-Hsiang Chou (Taiwan)
- PS-FP-13-39 The analysis of lumbar lordosis with pelvic incidence in asymptomatic Taiwanese adults**
Chih-Wei Chen (Taiwan)
- PS-FP-13-40 Efficacy, safety & reliability of high versus low dosages form of tranexamic acid used in adolescent idiopathic scoliosis surgery**
Sharif Ahmed Jonayed (Bangladesh)

Free Paper: Intradiscal Treatment

(5 min Presentation)

- PS-FP-14-1 Intradiscal and epidural platelet-rich plasma injection for the treatment of chronic discogenic low back pain**
En Song (China)
- PS-FP-14-2 1 year clinical result of condoliase for lumbar disc hernia**
Atsushi Yoshioka (Japan)
- PS-FP-14-3 The effectiveness of chemonucleolysis with condoliase for treatment of painful lumbar disc herniation**
Eijiro Okada (Japan)



13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society

APSS-APPOS 2021

In collaboration with the Japanese Society
for Spine Surgery and Related Research

Combined with the 60th Meeting of Japanese
Paediatric Hip Research Society



PS-FP-14-4 Transforaminal full endoscopic discectomy and thermal annuloplasty for HIZ radiculopathy
Kazuta Yamashita (Japan)



Scientific Program_APPOS

June 10 (Thu.)_502

10:15 - 10:25

Opening Remarks (Venue: 501)

Live

10:25 - 11:25

Symposium 1: Surgical Management of Upper Extremity Anomaly (8 min Presentation + 2 min Discussion)

Moderators: Goo Hyun Baek (Korea) / Hidehiko Kawabata (Japan)

Live On-demand

PO-SY-1-1 Surgical mobilization for congenital proximal radioulnar synostosis

Takehiko Takagi (Japan)

PO-SY-1-2 My reconstructive strategy for severe hypo plastic thumb

Shanlin Chen (China)

PO-SY-1-3 Surgical treatment of apert hands

Goo Hyun Baek (Korea)

PO-SY-1-4 Surgical correction for posttraumatic radial head dislocation

Margaret Woon Man Fok (Hong Kong)

PO-SY-1-5 Management of radial/ulnar deficiencies

Hidehiko Kawabata (Japan)

11:40 - 12:40

Plenary 1 (25 min Presentation + 5 min Discussion)

Moderators: Bobby Kinwah Ng (Hong Kong) / Yasuharu Nakashima (Japan)

Live On-demand

PO-PL-1-1 An ounce of prevention is worth a pound of cure ... a plea for hip surveillance programs in cerebral palsy

Ashok N. Johari (India)

PO-PL-1-2 Osteogenesis imperfecta: genetics, medical treatment & limb stabilization

Tae-Joon Cho (Korea)

12:55 - 13:55

Luncheon Seminar 2

Sponsored by Zimmer Biomet G.K.

Moderator: Yasuo Ito (Japan)

Live

LS-2-1 Knack and pitfalls in the management of traumatic cervical spinal cord injury

Takeshi Maeda (Japan)



14:10 - 15:10

Symposium 2: Club Foot Update

(8 min Presentation + 2 min Discussion)

Moderators: Ashok N. Johari (India) / Shinichi Satsuma (Japan)

Live On-demand

- PO-SY-2-1 Epidemiological trends of congenital talipes equinovarus (CTEV) in a single-centre in Singapore**
Arjandas Mahadev (Singapore)
- PO-SY-2-2 The principle of ponseti method: radiographic evaluation of achilles tenotomy**
Shinichi Satsuma (Japan)
- PO-SY-2-3 Foot prognosis following the ponseti method**
Katsuaki Taira (Japan)
- PO-SY-2-4 Club foot - risk factors of relapse**
Javed Iqbal (Pakistan)
- PO-SY-2-5 Treatment options for relapsed club foot**
Ashok N. Johari (India)

15:25 - 16:10

JPHS Board Meeting

Closed

16:10 - 16:25

JPHS General Meeting of Members

Closed

16:40 - 17:40

APPOS-JPHS Combined Symposium 1: LCPD Update

(8 min Presentation + 2 min Discussion)

Moderators: Bobby Kinwah Ng (Hong Kong) / Nobuhiro Kamiya (Japan)

Live On-demand

- PO-CS-1-1 A new therapeutic strategy for Legg-Calve-Perthes disease (LCPD) using a monoclonal neutralizing antibody for Interleukin 6 (IL-6) receptor by stimulating new bone formation and revascularization**
Nobuhiro Kamiya (Japan)
- PO-CS-1-2 Imaging advance in Legg-Calvé-Perthes disease**
Chang Ho Shin (Korea)
- PO-CS-1-3 Factors required for successful conservative treatment using NPS brace for LCPD**
Wook-Cheol Kim (Japan)
- PO-CS-1-4 The role of femoral osteotomy in the treatment of perthes disease**
Bobby Kinwah Ng (Hong Kong)
- PO-CS-1-5 The role of the Salter innominate osteotomy in Legg-Calvé-Perthes disease**
Kenichi Mishima (Japan)



17:55 - 18:55

APPOS-JPHS Combined Symposium 2: Unstable SCFE (8 min Presentation + 2 min Discussion)

Moderators: Aik Saw (Malaysia) / Takuya Otani (Japan)

Live **On-demand**

- PO-CS-2-1** **Diagnosis of unstable SCFE: how accurate?**
Aik Saw (Malaysia)
- PO-CS-2-2** **Timing of intervention in unstable slipped capital femoral epiphysis: the earlier the better?**
Toshio Kitano (Japan)
- PO-CS-2-3** **Epiphyseal hemodynamics and treatment of unstable SCFE**
Takuya Otani (Japan)
- PO-CS-2-4** **Open reduction with surgical dislocation**
Wang Chow (Hong Kong)
- PO-CS-2-5** **Management of AVN after unstable SCFE**
Ryosuke Yamaguchi (Japan)

June 11 (Fri.)_502

8:45 - 9:45

Morning Seminar 2

Sponsored by Stryker Japan K.K.

Moderator: Tetsuya Jinno (Japan)

Live

- MS-2-1** **Application of computer technology in Pediatric Orthopaedics**
Yutaka Inaba (Japan)

10:00 - 11:00

Symposium 3: Guided Growth: Past, Present and Future (8 min Presentation + 2 min Discussion)

Moderators: Hiroshi Kitoh (Japan) / Reiko Murakami (Japan)

Live **On-demand**

- PO-SY-3-1** **Guided growth for the correction of limb deformities and length discrepancy: indications, results and complications**
Akifusa Wada (Japan)
- PO-SY-3-2** **Guided growth: transphyseal screws vs. tension-band plate for treatment of angular deformity and limb length discrepancy in children**
Motohiro Kitano (Japan)
- PO-SY-3-3** **Application limit on leg length discrepancy**
Wang Chow (Hong Kong)
- PO-SY-3-4** **Guided growth: approach for skeletal dysplasias**
Hiroshi Kitoh (Japan)
- PO-SY-3-5** **Approach for coxa valga in cerebral palsy**
Chia Hsieh Chang (Taiwan)



11:15 - 12:15

Plenary 2

(25 min Presentation + 5 min Discussion)

Moderators: Takuya Otani (Japan) / Yasuharu Nakashima (Japan)

Live **On-demand**

PO-PL-2-1 A step forward with my heroes

Toshio Fujii (Japan)

PO-PL-2-2 Radiological changes of DDH in 10 to 30-year follow-up

Makoto Kamegaya (Japan)

12:30 - 13:30

Luncheon Seminar 4

Sponsored by CHUGAI PHARMACEUTICAL CO., LTD.

Moderator: Takuya Otani (Japan)

Live

LS-4-1 Paradigm shift in the treatment of hemophilia A; "New Normal" without arthropathy

Masataka Ishimura (Japan)

13:45 - 14:45

Symposium 4: Current Management of Cerebral Palsy

(8 min Presentation + 2 min Discussion)

Moderators: Alexander K. Y. Choi (Hong Kong) / Akifusa Wada (Japan)

Live **On-demand**

PO-SY-4-1 Botulinum toxin A: spasticity management for cerebral palsy

Mayuki Taketa (Japan)

PO-SY-4-2 Multi-level surgery for children with cerebral palsy

Alexander K. Y. Choi (Hong Kong)

PO-SY-4-3 Surgical intervention for spastic upper limb in cerebral palsy

Hidehiko Kawabata (Japan)

PO-SY-4-4 Surgical options for foot deformity

Ashok N. Johari (India)

PO-SY-4-5 Management of crouch gait

Hyun Woo Kim (Korea)

15:00 - 16:00

APPOS Council Meeting

Closed



16:15 - 17:15

APPOS-JPHS Combined Symposium 3: DDH Screening System

(8 min Presentation + 2 min Discussion)

Moderators: Jong Sup Shim (Korea) / Takeshi Kinjo (Japan)

Live On-demand

- PO-CS-3-1 DDH screening system in Japan**
Tadashi Hattori (Japan)
- PO-CS-3-2 DDH screening in Korea**
Jong Sup Shim (Korea)
- PO-CS-3-3 Developmental dysplasia of hip: screening in India**
Vrisha Madhuri (India)
- PO-CS-3-4 DDH screening system in China-our experience in Shanghai**
Li Zhao (China)
- PO-CS-3-5 EQUID Study – evaluation of the quality of ultrasound**
Leo Thomas Donnan (Australia)

17:30 - 18:30

APPOS-JPHS Combined Symposium 4: Advances in DDH Imaging

(8 min Presentation + 2 min Discussion)

Moderators: Chia Hsieh Chang (Taiwan) / Yuko Segawa (Japan)

Live On-demand

- PO-CS-4-1 Principle of Graf method**
Kenta Fujiwara (Japan)
- PO-CS-4-2 Hip sonography update: how we can use it for older children?**
Kiyoshi Aoki (Japan)
- PO-CS-4-3 Early detection of AVN**
Chia Hsieh Chang (Taiwan)
- PO-CS-4-4 Prediction of mature acetabular dysplasia using childhood MRI**
Tomoyuki Nakamura (Japan)
- PO-CS-4-5 Advance in DDH imaging: application of CT-based navigation**
Yutaka Inaba (Japan)

June 12 (Sat.)_502

8:45 - 9:45

Morning Seminar 4

Sponsored by Zimmer Biomet G.K.

Moderator: Takao Mae (Japan)

Live

- MS-4-1 Pediatric fracture care: pearls and pitfalls**
Tomohiro Matsumura (Japan)



10:00 - 11:00

Symposium 5: Arthroscopic Application for Pediatric Joint Diseases (8 min Presentation + 2 min Discussion)

Moderators: Takashi Saisu (Japan) / Keita Okada (Japan)

Live On-demand

- PO-SY-5-1 Arthroscopic treatment for septic arthritis in children**
Yasuhiro Oikawa (Japan)
- PO-SY-5-2 Arthroscopic application for pediatric and adolescent hip disease**
Hironobu Hoshino (Japan)
- PO-SY-5-3 Arthroscopic application for benign bone tumors: osteoscopy assisted curettage for bone tumors in pediatric, adolescent and young adult patients**
Makoto Endo (Japan)
- PO-SY-5-4 Endoscopic physeal bar resection for premature epiphyseal closure**
Takashi Saisu (Japan)

11:15 - 12:15

APPOS-JPHS Combined Symposium 5: Treatment of Acetabular Dysplasia in Older Children (8 min Presentation + 2 min Discussion)

Moderators: Ting-Ming Wang (Taiwan) / Daisuke Kobayashi (Japan)

Live On-demand

- PO-CS-5-1 Primary acetabular dysplasia - can we predict acetabular growth? -**
Daisuke Kobayashi (Japan)
- PO-CS-5-2 Familial and genetic risk factors**
Aik Saw (Malaysia)
- PO-CS-5-3 Role of pelvic or combined osteotomy in surgical treatment of DDH**
Li Zhao (China)
- PO-CS-5-4 Role of triple osteotomy**
Ting-Ming Wang (Taiwan)
- PO-CS-5-5 Role of periacetabular osteotomy**
Ryosuke Yamaguchi (Japan)
- PO-CS-5-6 Arthroscopic intervention for teenaged patients with dysplastic hip**
Hironobu Hoshino (Japan)

12:30 - 13:30

Luncheon Seminar 6

Sponsored by AbbVie GK / Eisai Co., Ltd.

Moderator: Yasuharu Nakashima (Japan)

Live

- LS-6-1 Spondyloarthritis around the world -lessons from Japanese population-**
Tetsuya Tomita (Japan)



13th Combined Meeting of Asia Pacific Spine Society & Asia Pacific Paediatric Orthopaedic Society

APSS-APPOS 2021

In collaboration with the Japanese Society for Spine Surgery and Related Research
Combined with the 60th Meeting of Japanese Paediatric Hip Research Society



June 12 (Sat.)_501

13:45 - 14:45

APSS-APPOS Combined Symposium

(8 min Presentation + 2 min Discussion)

Moderators: Yat Wa Wong (Hong Kong) / Hee-Kit Wong (Singapore) / Morio Matsumoto (Japan)

Live On-demand

- J-SY-1** **Challenge for extremely large scoliosis with severe and difficult disease**
Masashi Takaso (Japan)
- J-SY-2** **Early onset scoliosis (EOS) - effectiveness of growing devices**
Arvind Jayaswal (India)
- J-SY-3** **Congenital scoliosis**
Keith DK Luk (Hong Kong)
- J-SY-4** **Knacks & pitfalls of the treatment for syndromic scoliosis**
Haruhisa Yanagida (Japan)

June 12 (Sat.)_502

14:45 - 14:55

Closing Remarks (Venue: 501)

Live



On-demand Only Program_APPOS

(Abstracts marked with a "★" have been nominated for the Best Paper Awards)

Video on Surgical Technique (30 min Presentaion)

- PO-VD-1 **Modified Dunn for SCFE**
Wang Chow (Hong Kong)
- PO-VD-2 **Salter, double and triple pelvic osteotomy in children**
Takashi Saisu (Japan)

Free Paper: Upper Extremity (5 min Presentaion)

- PO-FP-1-1 **Successful treatment of chronic monteggia fracture-dislocations in children---a new reference**
Zhiqiang Zhang (China)
- PO-FP-1-2 **Characteristics of the length of the radius and ulna in children**
Chunxing Wu (China)
- PO-FP-1-3 **Treatment effect analysis of external fixation lengthening technique in pediatric radial and ulnar shortening diseases**
Chunxing Wu (China)
- PO-FP-1-4 **Surgical management of cubitus varus with mini external fixator (JESS FIXATOR)**
Deepak Subhash Jain (India)
- PO-FP-1-5 **Treatment of forearm deformity and radial head dislocation in pediatric patients with hereditary multiple exostoses**
Bo Ning (China)
- PO-FP-1-6 **Timing of microsurgery in upper trunk obstetric brachial plexus palsy: a systematic review and meta-analysis**
Jasmine Mahajan (USA)
- PO-FP-1-7 **Is the time at age of brachial plexus microsurgery changing over time? A systematic review**
Jasmine Shafei (USA)
- PO-FP-1-8 **Intercostal nerve transfer for biceps reinnervation in obstetrical brachial plexus palsy: a meta-analysis and comparison to supraclavicular exploration and nerve grafting**
George Abdelmalek (USA)
- PO-FP-1-9 **Reconstruction with linear circumferential skin closure for congenital constriction rings syndrome**
Hiroshi Furukawa (Japan)
- PO-FP-1-10 **Floating thumb duplication: characteristics of the preserved anlage before and after surgical correction**
Megumi Hanaka (Japan)
- PO-FP-1-11 **Pin and plaster technique: a useful method for poor matured callus formation during ulnar lengthening**
Mai Konishi (Japan)
- PO-FP-1-12 **Is microsurgery for obstetric brachial plexus palsy practiced equally throughout the world: a systematic review**
Michael Levidy (USA)
- PO-FP-1-13 **Has the quality of brachial plexus microsurgery research changed over time? A systematic review**
Michael Levidy (USA)

Free Paper: Lower Extremity (5 min Presentaion)

- PO-FP-2-1 **Predictive scoring for patellar instability**
Si Heng Sharon Tan (Singapore)



- PO-FP-2-2 The features of knee osteochondritis dissecans after discoid meniscectomy in the pediatric population**
Hiromasa Fujii (Japan)
- PO-FP-2-3 Vitamin D supplementation improves genu varum of toddlers**
Yuko Sakamoto (Japan)
- PO-FP-2-4 A timely difference - how accurate are prediction methods in determining timing of epiphysiodesis?**
Janus S.H. Wong (Hong Kong)
- PO-FP-2-5 Post snake bite compartment syndrome of lower limb in a child**
Deepak Subhash Jain (India)
- PO-FP-2-6 Results of combined surgery for equinovarus deformity in spina bifida**
Jiro Machida (Japan)
- PO-FP-2-7 Location of the ovaries in children and efficacy of shielding in hip and pelvis radiographs**
Azusa Yoneda (Japan)
- PO-FP-2-8 Valgus deviation after tibia lengthening over a nail or plate using monolateral external fixator in adolescents**
Kyeong-hyeon Park (Korea)
- PO-FP-2-9 Acute correction of tibia deformity with minimally invasive plating in children**
Kyeong-hyeon Park (Korea)
- PO-FP-2-10 The effect and application of the calcaneal osteotomy - for pes cavovarus with spina bifida -**
Shigemasa Komatsu (Japan)
- PO-FP-2-11 The outcome of lower limb lengthening with a submuscular plate**
Akio Nakura (Japan)
- PO-FP-2-12 Predictions of the amount of growth remaining in the lower-limb**
Kyung Rae Ko (Korea)
- PO-FP-2-13 Rebound after guided growth for the correction of long bone deformity in children**
Seung-Kyu Lee (Korea)
- PO-FP-2-14 Endoscopy-assisted subtalar release for rigid relapse cases of congenital club feet**
Masataka Kakihana (Japan)
- PO-FP-2-15 Reconstructive surgery for acquired clubfoot deformity in children**
Hiroshi Tanaka (Japan)
- PO-FP-2-16 A study of the timing of guided growth surgery by eight plates for leg length discrepancy**
Satomi Abe (Japan)
- PO-FP-2-17 Fibular condition and joint alignment after limb lengthening**
Yoshinobu Oka (Japan)
- PO-FP-2-18 Surgical treatment of severe infantile Blount disease**
Masashi Yamana (Japan)
- PO-FP-2-19 Surgical management of permanent patella dislocation by Stanislavljevic procedure**
Keita Okada (Japan)
- ★PO-FP-2-20 The effect of irrigation on temperature during drilling for corticotomy using the double barrel drill sleeve**
Muhammad Lutfi Abdul Rashid (Malaysia)
- PO-FP-2-21 Sequential lower extremity alignment of flatfoot children with general joint laxity**
Atsushi Nishida (Japan)
- PO-FP-2-22 Management of coxa vara with percutaneous subtrochantric valgus osteotomy with mini external fixator**
Varun L. Shetty (India)
- PO-FP-2-23 Case report guided growth for a patient with generalized morphea**
Reiko Murakami (Japan)



PO-FP-2-24 Lower limb deformity correction using intramedullary interlocking nail, guided by a poller screw
Muhammad Saad Ilyas (Pakistan)

PO-FP-2-25 Combined physeal bar resection and growth modulation surgery for correction of angular deformity following post traumatic physeal arrest in children
Varun L. Shetty (India)

Free Paper: Developmental Dysplasia of the Hip

(5 min Presentaion)

PO-FP-3-1 Trends in developmental dysplasia of the hip at Nagasaki University
Shohei Matsubayashi (Japan)

PO-FP-3-2 Congenital dislocation of the hip joint (CDH) and dislocation dysplasia of the hip (DDH), in Mongolia
Budee Bayantsagaan (Mongolia)

PO-FP-3-3 Decrease of obstacles in infants with late-diagnosed developmental dysplasia of the hip reduced gradually by flexion abduction continuous traction
Yaichiro Okuzu (Japan)

PO-FP-3-4 Acquisition of gross motor development in developmental dysplasia of the hip treated with the Pavlik harness
Akihiro Kawano (Japan)

PO-FP-3-5 Epidemiology of developmental dysplasia of the hip: analysis of Japanese National Database
Hiroki Den (Japan)

PO-FP-3-6 Thinning of hip joint capsule following open reduction for developmental dysplasia of the hip: a case control study
Kazuki Yamada (Japan)

PO-FP-3-7 Three-dimensional printing assisted corrective osteotomy for developmental dysplasia of the hip associated with short stature: a case report
Masatoshi Oba (Japan)

PO-FP-3-8 The relationship between gluteus medius and minimus muscle volumes and hip development in developmental dysplasia of the hip
Yohei Tomaru (Japan)

PO-FP-3-9 Universal ultrasound screening of DDH in neonates
Chihiro Hiraoka (Japan)

PO-FP-3-10 Predicting acetabular development in developmental dysplasia of the hip following open reduction after walking age using magnetic resonance imaging
Tomonori Tetsunaga (Japan)

PO-FP-3-11 Acetabular measurement standing pelvic radiograph in adolescence
Takahiro Nishimura (Japan)

PO-FP-3-12 Examination of gluteus medius muscle area after DDH treatment
Yoshihiro Sato (Japan)

PO-FP-3-13 Clinical and radiographic outcome of Salter innominate osteotomy for incidentally discovered acetabular dysplasia
Kenta Sawamura (Japan)

PO-FP-3-14 One-stage hip reconstruction for developmental hip dysplasia in children over 8 years of age
Mohammad Tallal Abdullah (Pakistan)

PO-FP-3-15 Capsular arthroplasty for neglected developmental dysplasia of hip
Umair Ahmed Ahmed (Pakistan)

PO-FP-3-16 Anterior coverage with axial magnetic resonance imaging is important for acetabular growth in patients with developmental dysplasia of the hip
Yuta Tsukagoshi (Japan)



- PO-FP-3-17 Closed repositioning following lower-extremity traction for developmental dysplasia of the hip in walking age**
Ryosuke Yamaguchi (Japan)
- PO-FP-3-18 The predictive value of lateralization index for future congruence of the hip following successful pavlik harness treatment for developmental dysplasia of the hip**
Ryosuke Sakata (Japan)
- PO-FP-3-19 Prevalence of developmental dysplasia of the hip in the patients with Turner syndrome**
Maki Kinugasa (Japan)
- PO-FP-3-20 How do Graf classification Type I and II acetabulums grow after infant examination?**
Erica Amemiya (Japan)
- PO-FP-3-21 Effect of anterior acetabular rotation on joint contact pressure in periacetabular osteotomy: a finite-element analysis study**
Kenji Kitamura (Japan)
- PO-FP-3-22 Three-dimensional evaluation of the cartilaginous hip morphology by MRI before and after Salter innominate osteotomy**
Takahiro Natori (Japan)
- PO-FP-3-23 A rare case of an iliac fracture at iliac fossa immediately after Salter innominate osteotomy**
Masanori Wako (Japan)
- PO-FP-3-24 Validation of parameters recommended for secondary screening for developmental dysplasia of the hip in Japan**
Tomohiro Shimizu (Japan)
- PO-FP-3-25 The meaning of asymmetric femoral skin fold in DDH screening**
Wataru Koizumi (Japan)
- PO-FP-3-26 Four-years experience with new screening system on developmental dysplasia of the hip**
Yuko Segawa (Japan)

Free Paper: Legg-Calvé-Perthes Disease (5 min Presentaion)

- PO-FP-4-1 Guitar pick sign: a novel sign of poor prognosis of Legg-Calve-Perthes disease after proximal femoral varus derotational osteotomy**
Fusako Shimoazono (Japan)
- PO-FP-4-2 Treatment result of proximal femoral varus osteotomy for Legg-Calve-Perthes disease**
Noboru Oikawa (Japan)
- PO-FP-4-3 Residual femoral head deformity after treatment for legg-calvé-perthes disease decreases satisfaction on JHEQ**
Junya Shimizu (Japan)
- PO-FP-4-4 BMD and body composition for Legg-Calvé-Perthes disease children who underwent conservative treatment with abduction brace**
Kohei Shimoyama (Japan)
- ★PO-FP-4-5 3D-MRI analysis of articular cartilage thickness in the femoral head of children with Legg-Calvé-Perthes disease**
Hidenao Tanaka (Japan)

Free Paper: Slipped Capital Femoral Epiphysis (5 min Presentaion)

- PO-FP-5-1 Critical Analysis of Impingement following In situ fixation of SCFE**
Vishnu Senthil Kumar (India)
- PO-FP-5-2 Relationship between sports activities and obesity in children with slipped capital femoral epiphysis**
Yasuhiko Kawaguchi (Japan)
- PO-FP-5-3 A case report of bilateral slipped capital femoral epiphysis occurred in 3 years old boy**
Myongsu Ha (Japan)



Free Paper: Genetic Disorder (5 min Presentaion)

- PO-FP-6-1 Health-related quality of life in patients with multiple epiphyseal dysplasia and spondyloepiphyseal dysplasia**
Masaki Matsushita (Japan)
- PO-FP-6-2 Valgus - extension osteotomy with external fixation for coxa vara in a child with kniest dysplasia: a case report**
Chika Mizuno (Japan)
- PO-FP-6-3 Locking plates in assisting bone union after osteotomy in patients with OI treated with modified sofield millar operation**
Shi Jie Yin (Hong Kong)
- ★PO-FP-6-4 Genetic, phenotypic and geographical distributions of a large Chinese osteogenesis imperfecta cohort**
Peikai Chen (China)
- PO-FP-6-5 WNT1 mutations in osteogenesis imperfecta: retrospective study of a large chinese single-center cohort**
Zhongxin Dong (Hong Kong)
- PO-FP-6-6 Articular contracture can limit daily activities and its effect on quality of life in this population deserves further study**
Ya Peng Zhou (Hong Kong)

Free Paper: Neuromuscular Disease (5 min Presentaion)

- PO-FP-7-1 A 3-D Printed dynamic upper extremity orthosis (DUEO) for children with cerebral palsy and severe arm involvement: a pilot study**
Alice Chu (USA)
- PO-FP-7-2 The key to successful non-operative treatment for the contralateral hip in cerebral palsy patients with unilateral hip subluxation**
Lok Wah Noah So (Hong Kong)
- PO-FP-7-3 One stage femoral varus derotational osteotomy concomitant with soft tissue release for bilateral hip joints in cerebral palsy**
Mihoko Hatano (Japan)
- PO-FP-7-4 Can botulinum toxin treatment prevent surgical intervention for children with cerebral palsy who are suffering from spasticity?**
Keiko Eimori (Japan)
- PO-FP-7-5 Did the COVID-19 pandemic affect access to orthopedic surgical care for children with cerebral palsy and muscular dystrophy?**
Alice Chu (USA)
- ★PO-FP-7-6 Growth disturbance of the capital femoral epiphysis following reconstructive hip surgery in patients with cerebral palsy**
Byoung Kyu Park (Korea)
- PO-FP-7-7 Classification of paralytic levels in lower limbs and functional mobility in upper limbs among spina bifida patients using DXA scans**
Hiroki Fujita (Japan)
- PO-FP-7-8 Natural course of neuromuscular scoliosis and effectiveness of reduction surgery for hip dislocation/subluxation among severe cerebral palsy**
Yoh Fujimoto (Japan)
- PO-FP-7-9 Orthopaedic selective spasticity-control surgery for equinus deformity of the foot in patients with cerebral palsy**
Ken Sugita (Japan)



★PO-FP-7-10 Long-term outcomes of soft tissue surgery for the prevention of hip displacement in children with severe cerebral palsy: comparison with the natural course

Takashi Hatano (Japan)

PO-FP-7-11 Early outcome of combined hip surgery for spastic hip subluxation and dislocation

Yongseung Lee (Japan)

PO-FP-7-12 Role of halo gravity traction and two staged surgery in severe neuromuscular scoliosis

Kushal Ramesh Gohil (India)

PO-FP-7-13 Surveillance study on reasons for the cessation of botulinum toxin-A therapy in spastic patients

Yoshika Kawamura (Japan)

Free Paper: Sports

(5 min Presentaion)

★PO-FP-8-1 Prevalence of multiple-level spondylolysis and the bone union rates among growth-stage children with lower back pain

Noriyuki Iesato (Japan)

PO-FP-8-2 Tibial tuberosity avulsion fracture in children using soft suture anchors without screws: a case report

Shutaro Aiba (Japan)

Free Paper: Trauma

(5 min Presentaion)

PO-FP-9-1 A case of acute compartment syndrome of paediatric foot with systematic review

Vishnu Senthil Kumar (India)

PO-FP-9-2 Functional outcome of paediatric fracture neck of femur – a case series

Vishnu Senthil Kumar (India)

PO-FP-9-3 Neglected pediatric proximal humerus surgical neck fracture – managed conservatively

Vishnu Senthil Kumar (India)

PO-FP-9-4 Short term outcome of treatment with percutaneous cross Kirschner wires in paediatric distal humeral metaphyseal diaphyseal junction fractures

Shahzad Anver Qureshi (Pakistan)

PO-FP-9-5 Clinical outcomes of pediatric ankle open fractures

Atsushi Sugita (Japan)

PO-FP-9-6 Fixation of pediatric humeral lateral condyle fractures with 3 K-Wires

Deepak Subhash Jain (India)

PO-FP-9-7 Disappearing pulse hand - a rare clinical scenario

Deepak Subhash Jain (India)

PO-FP-9-8 The impact of the COVID-19 pandemic on pediatric orthopaedic trauma in a metropolitan area

Alice Chu (USA)

PO-FP-9-9 Second fracture – a rare presentation in an adolescent

Devarani Pancharatnam (Malaysia)

PO-FP-9-10 Presence of immature radiographic healing following intramedullary Kirschner-wire fixation in pediatric both-bone diaphyseal forearm fracture may contribute to occurrence of refractures

Nobuaki Tsukamoto (Japan)

PO-FP-9-11 Conservative treatment to traumatic atlantoaxial joint infra-anterior dislocation complicating dens epistrophei fracture in young children

Chunxing Wu (China)

Free Paper: Tumor

(5 min Presentaion)

PO-FP-10-1 Fibrous dysplasia of hip – a novel management

Vishnu Senthil Kumar (India)



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Free Paper: Infection & Inflammatory Disease

(5 min Presentaion)

PO-FP-11-1 **Withdrawn**

PO-FP-11-2 **Lytic lesion of proximal humerus in a child– a diagnostic dilemma**

Vishnu Senthil Kumar (India)

PO-FP-11-3 **Scurvy masquerading as septic arthritis in a patient with cerebral palsy**

Deepak Subhash Jain (India)

PO-FP-11-4 **Effective and rapid microbial identification in pediatric osteoarticular infections using blood culture bottles**

Chang Ho Shin (Korea)

PO-FP-11-5 **Characteristics of pyomyositis compared to pyogenic osteomyelitis and arthritis**

Chikahisa Higuchi (Japan)

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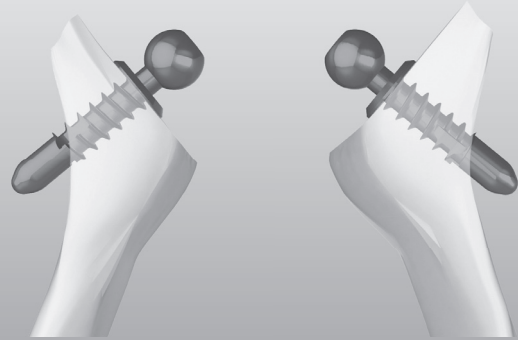
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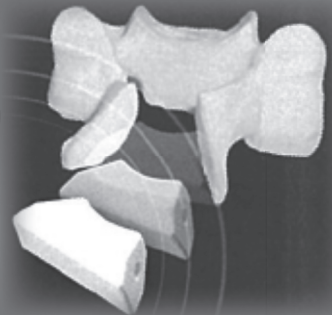
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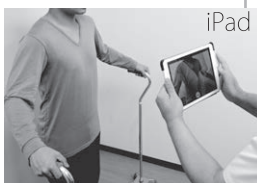
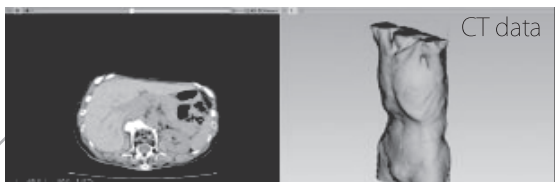
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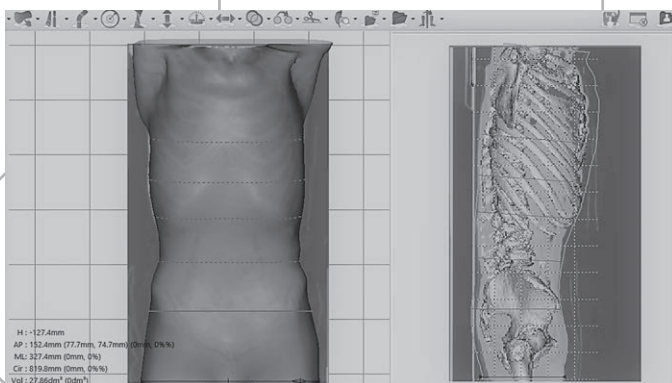
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2020年12月作成

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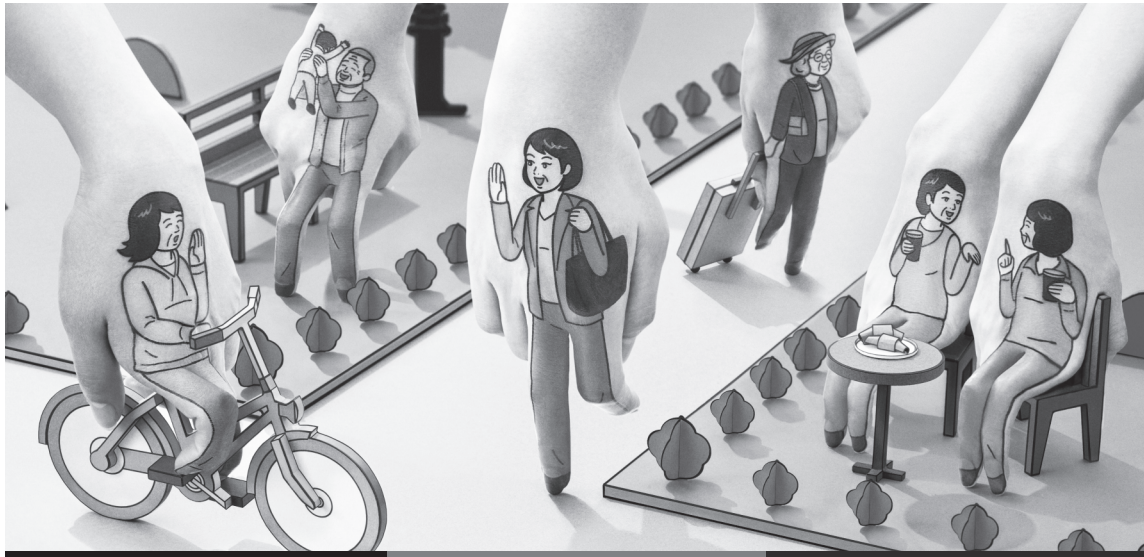
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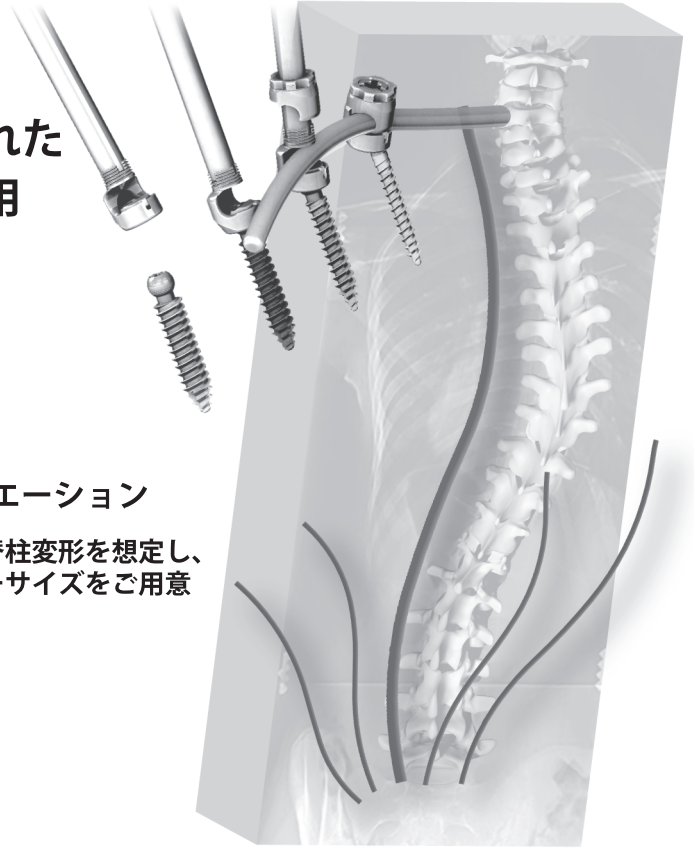
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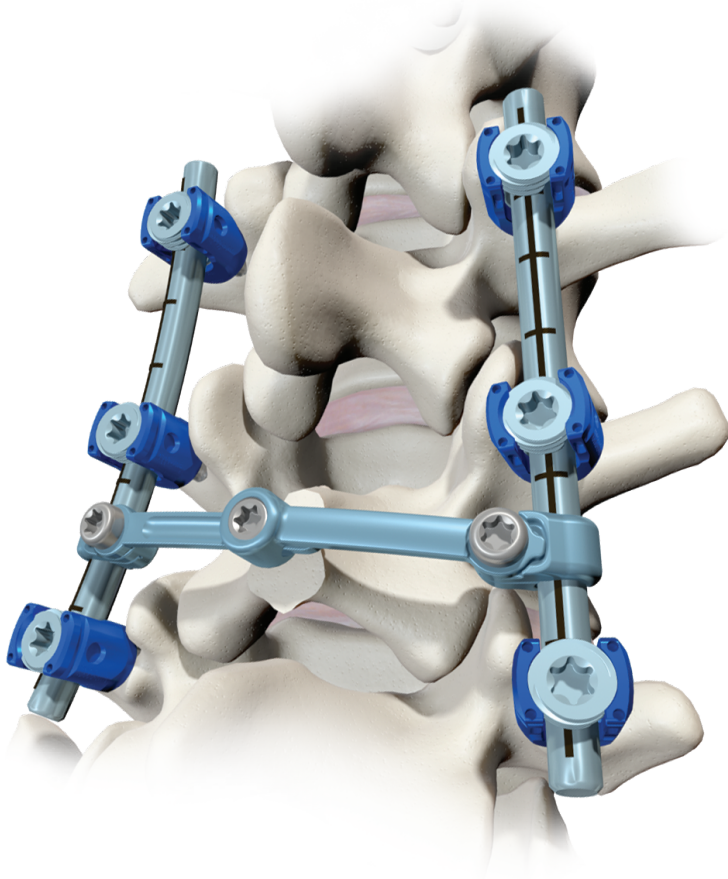
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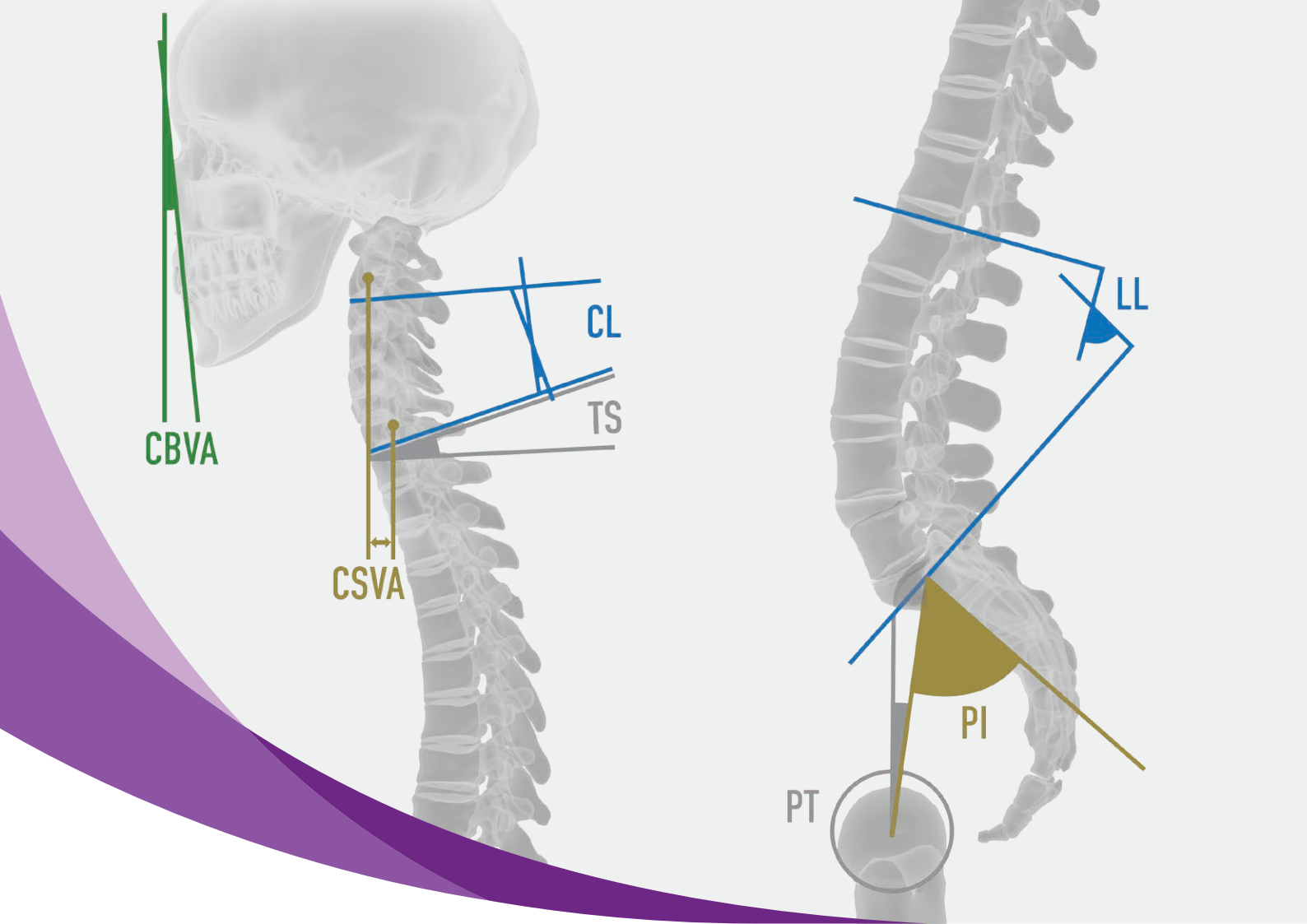
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