

Aplastic Anemia in East Malaysia Sabah

Lily Wong

Queen Elizabeth Hospital, Kota Kinabalu, Sabah

Despite being only the third most populous state in Malaysia, the East Malaysian state of Sabah has the highest number of aplastic anaemia cases in whole Malaysia. A paper in 1998 published the incidence of Aplastic anaemia in Sabah to be 4.8/million/ year, the current number appear to be higher at estimate of 5.5 to 7.5/million/ year.

The East and West Malaysia have different ethnic composition The majority of people in West Malaysia consist of the Malay race, whereas in the state of Sabah, the majority ethnic group is the Kadazan-Dusun race who are the natives of Sabah. The Kadazan-Dusun constituted 59% of the total Aplastic Anaemia patient pool of Sabah, that was disproportionately high compared to its percentage composition of the Sabah population (18%). The HLA-DR 15 antigen frequencies were reported to be significantly higher amongst the North American white aplastic anaemia patients compared to control population of white blood donors. Dhaliwal et al reported the Kadazan-Dusun race as an aboriginal population with one of the highest frequencies of HLA DR15 in the world. 96.9% of Sabah's Aplastic Anaemia patients studied has HLA DRB1*15. Dr Dhaliwal also reported significantly higher frequencies of HLA DRB1*1501 allele amongst the aplastic anaemia patients vs the community control. Hence, it is postulated that the Kadazun-Dusun race in Sabah has genetic predisposition towards the development of aplastic anaemia. However, likely not HLA-DRB1*15 per se responsible for the increased risk, but a polymorphism in linkage disequilibrium with HLA DRB1*15.

A preliminary report on the characteristics and treatment outcome of Sabah Aplastic Anaemia patients will be discussed.