IBRA Scholarship Report

Name of Scholar	– Choon Chiet, Hong (Andrew)
Country of Citizenship	– Singapore
Name and Country of Training Center	– Swiss Ortho Center, Schmerzklinik, Basel, Switzerland
Fellowship Director	– Prof. Dr. med. Victor Valderrabano
Scholarship Type	– Type B
Scholarship date	– 30th Jan to 26th Feb 2023

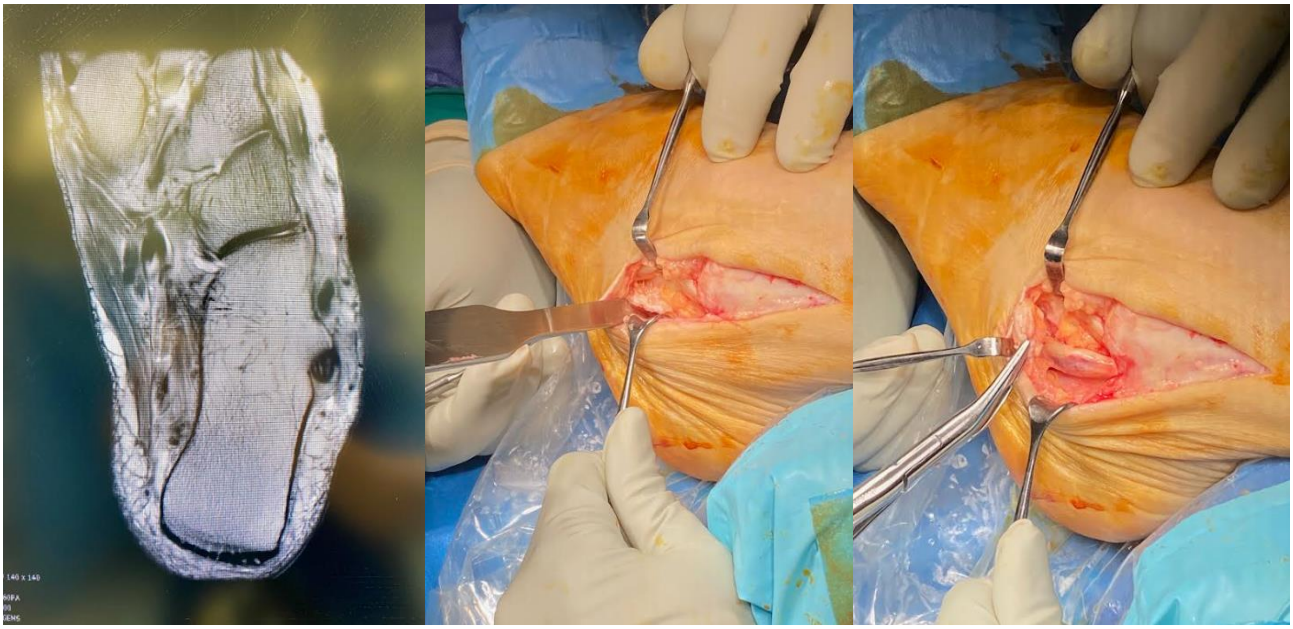
I am an Orthopaedic Surgeon from Singapore. I have completed 2 prior fellowships in Germany and the United Kingdom respectively. This is a 4-weeks visiting fellowship awarded by the IBRA Scholarship Type B to the Swiss Ortho Clinic in Basel, Switzerland under the mentorship of Prof Victor Valderrabano.

I have a special interest in ankle osteoarthritis and have always wanted to learn about the management of ankle osteoarthritis using ankle replacement with more depth and understanding. Despite previous training in ankle replacements, I want to further improve my skills and comprehend the biomechanical concepts of total ankle replacement. Therefore, it is an honour and pleasure to learn from Prof Victor Valderrabano who is a world renowned expert in the treatment of ankle osteoarthritis and deformity correction. He is a leading expert in the field of total ankle replacement skilled in performing both primary and revision ankle replacements. Additionally, he is the co-inventor of one of the latest total ankle prosthesis (Vantage) designed to be more anatomical and robust for sporty patients. Prof Valderrabano is also a wholesome lower limb surgeon who does hip and knee surgeries which complemented my surgical practice back home.

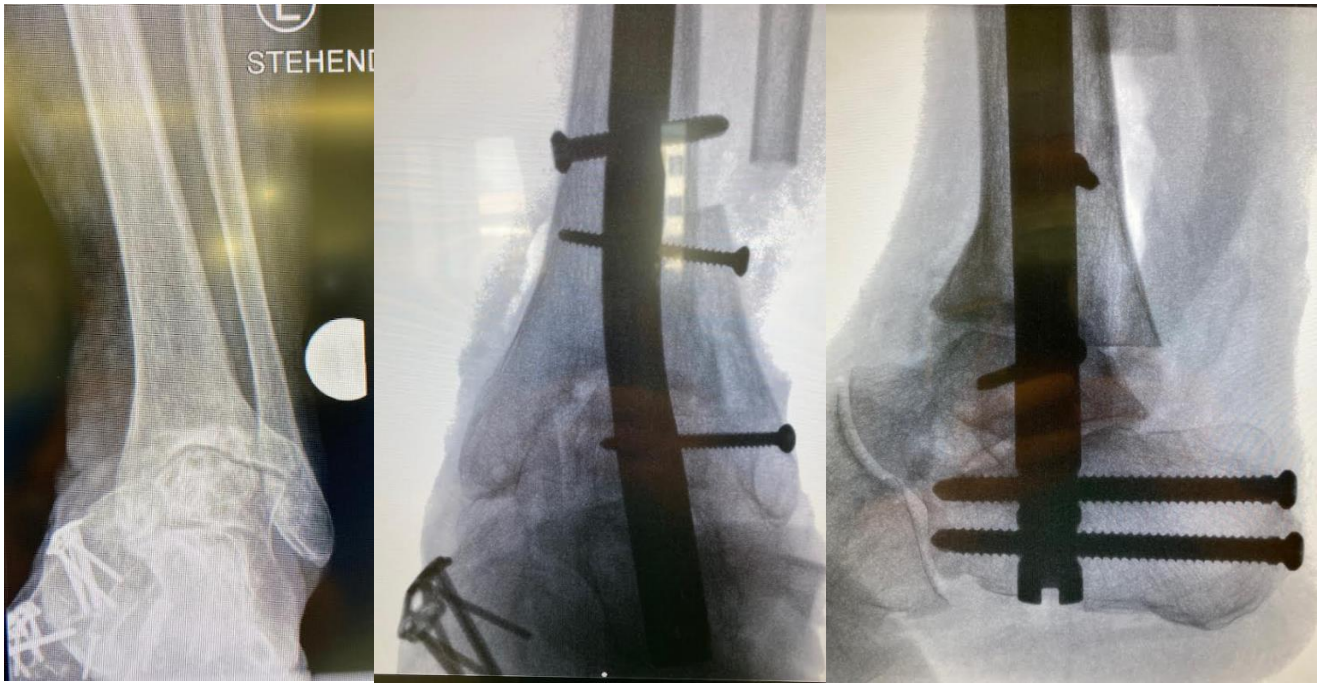
In the Swiss Ortho Center, a typical week starts with outpatient clinics on Monday, Tuesday, alternate Thursday and Friday while his operating list is on every Wednesday and alternate Thursdays. In the clinic, I was given the opportunity to review and discuss interesting cases guided by Prof Valderrabano despite the busy practice. There were many complicated cases (second/third opinion seekers) in his clinic and I had a great time examining these patients while discussing the treatment options using evidence based medicine. Prof Valderrabano is very academic and was constantly challenging my understanding of surgical techniques and concepts of deformity correction with out-of-the-box opinions (the VV approach). As a result, I was constantly reading up-to-date literature, discussing the best treatment options coupled with biomechanical advantages of different surgical approaches individualized to the patient.

Correspondingly, he is a maestro in the operating theatre performing up to 9-12 surgeries a day! I have observed and assisted in 52 cases over the 4-weeks period of which many were complex cases involving revision surgeries and customized approaches to correct the foot deformities. I was also permitted to scrub and assist in these surgeries as we alternate between 2 operating theatres which provided an inclusive environment for me to learn tips and tricks to improve my own practice as well as the opportunity to exchange views and clarify doubts immediately during the surgery. Specifically, I was able to observe and learn his unique approach to lateral ligament repair using transosseous sutures with periosteal augmentation, Diple fusion with a single medial incision, lateral column lengthening for pes planus correction and modified Lapidus procedure for hallux valgus surgery. A few memorable cases were resection of a large hypertrophic peroneal tubercle with peroneal tendon reconstruction and lateral ligament repair in a patient with chronic lateral ankle instability, total ankle replacement in a patient with previous triple fusion and multiple screws in the talus requiring removal followed by grafting of the bone defects and Cotton osteotomy to correct the residual forefoot varus and a tibiotalocalcaneal fusion augmented by a fibula onlay strut graft for severe ankle and subtalar joint arthritis. The highlight of my time here was the fact that I was able to assist and learn from the inventor of Vantage himself during several cases of total ankle replacements using both the curve and flat cut talus for ankle osteoarthritis. All my questions about ankle replacement biomechanics particularly about Vantage was clarified during this fellowship. This is indeed a versatile ankle prosthesis with user friendly instruments and reliable outcomes. Therefore, I am looking forward to adopting this particular prosthesis back home when I consider total ankle replacement for my patients.

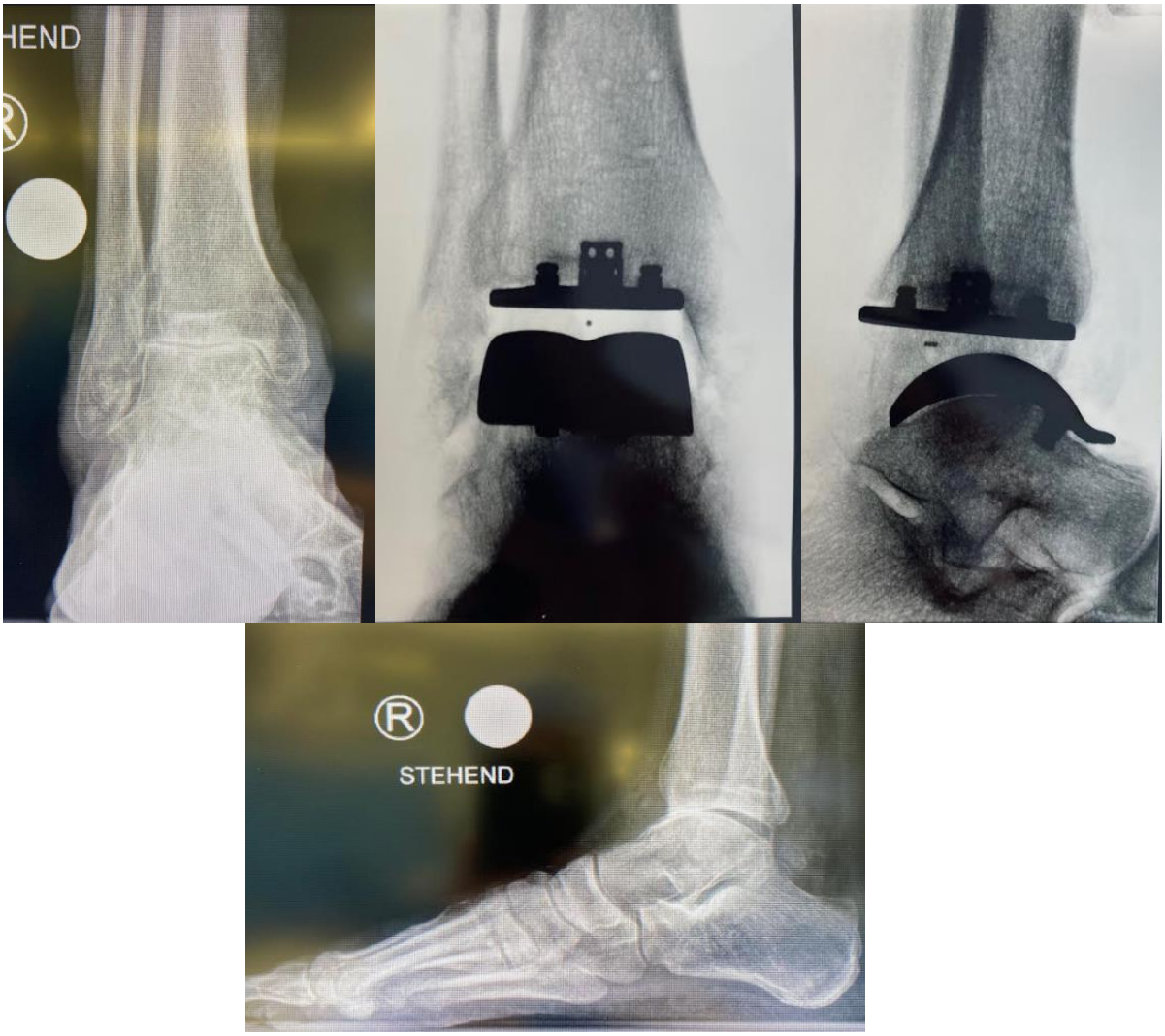
Patient with previous triple fusion and ankle osteoarthritis – undergone multiple screws removal, bone grafting of the defects and Vantage ankle replacement with a flat cut talus.



Patient with a large hypertrophic peroneal tubercle seen on MRI and clinical pictures underwent resection of the large hypertrophic peroneal tubercle with peroneal tendon reconstruction and lateral ligament repair due to chronic lateral ankle instability.



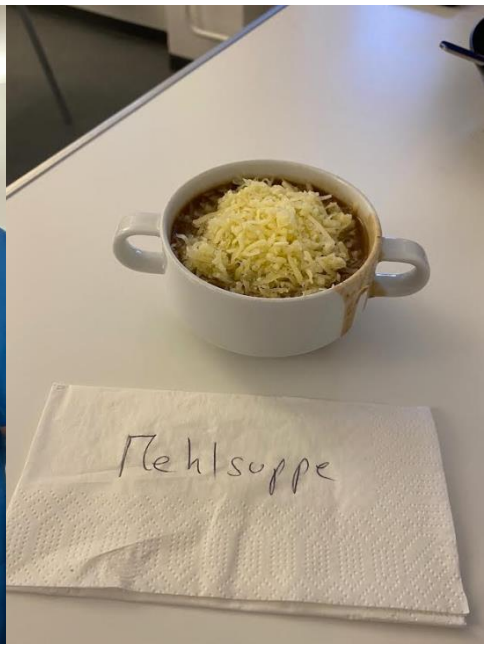
Patient with severe ankle and subtalar joint arthritisin a varus malaligment for tibiotalocalcaneal fusion. Note the technical difference in terms of the fibula onlay grafting (biological support) to improve construct stability.



Patient with ankle osteoarthritis – Vantage total ankle replacement with curve cut talus.

Personally, I have had an incredible experience coming to Basel, Switzerland where I was treated with warm hospitality and respect by everyone in the clinic and operating theatre. Prof Valderrabano is a gentleman and a scholar! He is super friendly, humble and inspiring. He was very willing in sharing his knowledge and tips to avoid pitfalls during surgery. Prof Valderrabano has taught me skills and patient-centric approaches to provide individualized treatment to achieve better outcomes. I was also given the chance to contribute contents to one of his book project and write up a surgical technique manuscript for journal publication. On top of that, he always encouraged me to travel around for the fantastic sights and beautiful sceneries of Switzerland and try their local food. In fact, I was introduced to several must-try Swiss foods such as the Basler Mehlsuppe which is a flour soup with grated Swiss cheese and the Bircher Muesli during our time together. I also had the opportunity to try some outstanding Swiss Linzer torte during one of our operating days. During my time there, I have formed a wonderful camaraderie with his current fellow, Dr Simone Santini who is a great friend and surgeon from Rome, Italy.

One for the album with Prof Valderrabano!



Swiss Linzer torte and Basler Mehlsuppe during OT days.

Working hard with Dr Simone Santini (Prof Valderrabano's current fellow)!

Thanks to Medartis and Prof Valderrabano, I was able to visit their main office and manufacturing facility where I was given a tour by Peter Cologna (Head Education) on how the Medartis plates and screws were meticulously templated, cut and produced with precision. The extent of post-production quality check was amazingly intensive! In addition, the manufacturing process also provided an insight into the amount of titanium used on a daily basis which was fascinating. All in all, I had a great time learning about the characteristics of the implants that we use on a daily basis. I would also like to express my deepest gratitude to IBRA for supporting me with this scholarship and all the special people in IBRA for the excellent coordination and organization. Last but not least, I want to extend my appreciation and a BIG THANK YOU to Prof Valderrabano and his team (Charlotte Rauber, Simone Santini, Miranda, Alexandra and the team of OT nurses) for their kindness, generosity and warmth.

Medartis tour with Peter Cologna.