IBRA Scholarship report

Information about Scholar and Fellowship

Name of Scholar: Dr. Raquel Bernardelli Iamaguchi da Costa
Country of Citizenship: Brazil
Name and Country of Training Center: Tirol Kliniken, University of Innsbruck, Austria
Name of Fellowship Director: Head of Department of Trauma Medical University Innsbruck Prof. Dr. Rohit Arora
Scholarship type: Program B
Scholarship date: July 1st-July 31th, 2022

Professional and personal experience

The Tirol Kliniken, University of Innsbruck in Austria is a Trauma Center receiving patients within the city of Innsbruck and Tirol region, but also is a reference center for Trauma in Austria and from other closer Countries. The Department of Trauma includes Trauma and Orthopaedic Surgery.

The University of Innsbruck has an organized morning meeting with discussion at 7:00 of all operated and schedulled patients in the Tirol Kliniken, by all Trauma and Orthopaedic Surgeons with participation of radiologists, Trauma and Orthopaedic Surgeons, nurses, students and fellows from Austria and other Countries. Before the morning meeting I was able to follow the visit to hospitalized patients of the Hand Team, as Hospital and floors in Tirol Kliniken are divided in different Yards according to the Orthopaedic or Surgery Specialty.

My visit was centralized in Upper extremity Trauma and Hand Surgery, as I am doctor consultant of Hand and Microsurgery Team from University of Sao Paulo, Brazil. My professional expectation was being able to see a reference Trauma Hospital of a developed country and the patient flow for these traumas. My expectation were fulfilled and I was able to join the Hand team and also the Fellowship director in many trauma surgeries of Upper extremity.

The Fellowship Director Professor Arora is an excellent trauma Surgeon, performing both Upper and Lower extremity surgeries and in many cases, the most difficult cases of Traumatic injuries. I had the opportunity to follow Dr. Gernot

Schmidle (Head of Hand Team at Medical University of Innsbruck, Austria) in many complex distal radius fractures with FPL plates for distal radius. In those distal radius fractures with articular involvement, dry arthroscopy was performed to check the reduction. The planning of complex articular distal radius fracture was very interesting with initial approach of distal radius volar or dorsal according to characteristics of the fracture with forearm in a Hand surgical table, reduction and temporary stabilization with K-wires of articular and extra-articular fractures. After adequate reduction, a FPL plate was inserted and fixed with some distal screws and cortical proximal screw in gliding hole. The wrist was then positioned in vertical position with 4-6 kg traction and dry arthroscopy was performed to check the articular reduction of fragments. In one of the cases, it was important to perform the dry arthroscopy, as the dorsoulnar fragment was unstable and decision-making of repositioning screws in order to obtain the ideal reduction and stabilization checked in dry arthroscopy. A distal radioulnar joint portal was performed to verify screws and stabilization, trough 3-4 and 6R dorsal portals of the wrist, Dr. Gernot Schmidle was able to always evaluate the carpal instability and adequate reduction of fractures. X-rays with dorsal and volar wrist flexion to evaluate the adequate screw size and that the screws were not penetrating the DRUJ. Another distal radius fracture was a unstable articular fracture that had a dorsal fragment that could not be adequately fixed with a volar plate and was necessary a dorsal approach that could be fixed with a dorsal plate, the reduction could be checked with dry arthroscopy and no articular gap was observed. Another interesting case of Dr. Gernot Schmidle was a young adult patient with distal radioulnar instability and laxity of superior limb, already submitted to triangular fibrocartilage complex reconstruction arthroscopically, with maintenance of ulnar-sided pain and DRUJ instability, Dr Gernot Schmidle performed a stabilization of DRUJ with a slip of extensor retinaculum in order to avoid the Adams procedure in these young patient, the slip of extensor retinaculum was sutured with fiberwire with immediate postoperative stabilization of DRUJ.

The case study chosen to be described in my fellowship was performed by Dr. Gernot Schmidle with a close-wedge osteotomy of distal radius for incongruent distal radio-ulnar joint with arthritis, stabilized with a distal radius volar plate Adaptive II.

Dr. Gernot Schimidle received two visiting doctors from Vienna to learn with him about wide-awake surgeries in day-clinic surgeries with many interesting cases, including a bilateral proximal median nerve compression neuropaty.

Another great Surgeon is Dr. Tobias Kastenberger that I was able to join in his surgeries and outpatient clinic. Some of the most interesting surgeries performed by

him were: two supracondylar fracture of distal humerus, that were approached through a posterior incision with triceps-sparing, with identification of ulnar nerve and temporary fixation with K-Wires and definitive fixation with Distal Humerus Plate with 90 degrees double plate fixation. The reduction was anatomic and fixation very stable, allowing early mobilization of elbow. It was interesting to join the surgeries, because one of them had a very comminuted fracture, but triceps-sparing was excellent to help the reduction and plates fixation and Dr. Tobias Kastenberger has the concept that olecranon osteotomy are no longer needed for supracondylar distal humerus fracture and I agree with him that triceps-sparing posterior approach is excellent even with articular fractures.

The other interesting case was a senior patient with 80 years old with bad bone quality, but the 90 degrees double plate fixation was very stable with clinical benefits with early elbow mobilization, reduction the morbidity of this fracture in old-age group. Another interesting surgery was a distal radius fracture with volar approach, the articular fracture was extremely cominuted and was fixed with temporary K-wires fixation and definitive fixation with FPL plate, these fracture was especially difficult because of comminution of articular facture that was checked with good reduction and stabilization but as suspected, the scapholunate ligament was ruptured Geissler type 4, the option was a dorsal approach with dorsal scapholunate reinsertion with bone anchors and protection with K-Wires.

I was welcomed by the Head of Department of Trauma Medical University Innsbruck Prof. Dr. Rohit Arora and at the very first day, I could join him in an unstable lateral epycondile and radial head fracture with desinsertion of lateral ulnar collateral ligament in a child, the injury could be sutured with good stability. Some of the hardest distal humerus fractures and distal radius fractures resulting from high energy sports trauma, including bike downhill, ice skiing, paraglide accidents were observed in Tirol Kliniken, University of Innsbruck, Austria. Some of those articular and cominuted fractures were operated by the Head of the Department Prof. Dr. Rohit Arora, that could be “assemble like a puzzle” and fixed with Distal Humerus Plate 2.8, with 90 degrees double plate fixation. I was able to join Prof. Dr. Rohit Arora in a chronic case with osteomyelitis of tibia in a patient that had a total knee replacement, that unfortunately, needed an above-knee amputation.

The most significant personal experience of the scholarship was meeting three excellent orthopaedic and Trauma surgeons and being able to assist the surgeries and get in touch with different approaches and thoughts about upper extremities fractures with excellent available fixation materials. I learned a lot with their standard techniques for surgeries that are taught at University of Innsbruck for decades. Another great aspect of the fellowship is the cultural exchange between

surgeons of very different countries. The University of Sao Paulo, that I am a doctor Assistant, also a Public Hospital and an IBRA Training Center. I was really excited to meet the Hand team of University of Innsbruck and we will keep in touch in the future.

Closing words

The Scholarship in Tirol Kliniken, University of Innsbruck, Austria fulfilled completely my expectations and I would recommend visiting Trauma and the Hand team in Tirol Kliniken.

The city of Innsbruck is one of the most beautiful cities in the world with a young atmosphere, as the city has the University of Innsbruck that receives students from all over the world. I would be able to recommend some close neiborhoods of the Hospital, such as the city center and Bothanical garden for housing. I am sure that fellows would be pleased to visit University of Innsbruck in Summer time.

I would like to thank Dr Gernot Schmidle (Head of Hand Team at Medical University of Innsbruck, Austria) for innovative surgeries and friendship, Dr. Tobias Kastenbergern, also for the surgeries and great talks about University Hospitals and Hand Surgery and Prof. Dr. Rohit Arora (Head of Department of Trauma and Orthopedics at Medical University of Innsbruck, Austria) for accepting me for scholarship and for the kind reception of all Trauma Department.

I am a Doctor Consultant at University of Sao Paulo that is an IBRA Training Center, with my dear Prof. Dr. Rames Mattar jr as Head of the Training Center and we would be pleased to receive students to get in touch with complex trauma and microsurgery cases. I would like to thank IBRA to this once in a life opportunity to do the scholarship with your support.

Yours sincerely,
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