IBRA Scholarship at the John Hunter Hospital, NSW, Australia

Information about the Scholar and Fellowship

I am Bryan Sotto Padilla, from Bolivia, and I completed my residency in Orthopedics and Traumatology in São Paulo, Brazil. I have applied to IBRA to visit Dr. Brett McClelland and Dr. Tanya Burgess at the John Hunter Hospital in Newcastle, NSW, Australia, with a program B scholarship from March 6 to 31, 2023.

I am currently a 2nd year resident in the Hand Surgery Residency at the Instituto de Ortopedia e Traumatologia do Hospital de Clinicas da Universidade de So Paulo, Brazil.

What were your professional and personal expectations of the scholarship?

My professional expectations of the fellowship were to see cases that at my residency hospital did not have much exposure, in particular hand and wrist arthroplasty and arthroscopy. Besides that, I was very eager to see how a public hand surgery service is organized and performs in a country outside South America.

My personal expectations were to have the possibility to discuss technical points with mentors who offer me the advantages of their experience and the option to create connections for future collaboration. I also looked forward to talking about similarities and differences in theoretical and practical training in Brazil and Australia.

What is the main focus of the IBRA Training Center (in general and of the department)?

The focus of Dr. Brett McClelland and Dr. Tanya Burgess' practice is orthopedic hand and wrist surgery. Performing arthroscopic and arthroplasty procedures of the hand and wrist joints. In addition to treating acute fractures, traumatic amputations, Dupuytren's disease, and other hand and wrist pathologies.

What did you do during your scholarship/how were you incorporated in the training center's daily routines/activities:

I observed a busy hospital of high complexity, a reference within the state of New South Wales, in Australia, with patients that can arrive from distant cities to Newcastle (I saw a case more than 600 km away), both for outpatient care and emergency care, in the latter case the transport can be done by air transport via helicopter.

John Hunter's surgical center has 1 to 2 operating rooms every day for elective and/or emergency surgeries, exclusively for patients with orthopedic pathology of the wrist and hand.

Besides having a sector to perform outpatient care, pre-operative evaluation, post-operative follow-up, and therapy, with hand therapists working together.

I observed outpatient appointments with local and international patients, due to the large volume of care that John Hunter Hospital performs.

The John Hunter hospital also has the ability to be part of a network of hospitals that can refer patients to perform minor elective surgical procedures in different parts of the city of Newcastle.

How many surgeries have you assisted at and which concrete technical modifications and methods have you seen?

I was able to participate in more than 50 procedures in the OR and was grateful to see a system that uses three doors to enter the OR, one that connects to the pre-anesthetic room, one that communicates to the lavatory, and one that allows connection to the central operating room. This allowed me to understand the methods that are performed to have an efficiency in the operating room, allowing surgical procedures to be performed with a patient changeover time of between 15 to 30 minutes.

I have seen endoscopic carpal tunnel release in conjunction with cubital tunnel release, which are performed through small incisions in the proximal bend of the wrist and medial region of the elbow, retro medial epicondyle; respectively. The main tips would be to use as proximal and distal limit of the cubital tunnel the visualization of muscle to ensure that the entire ligament is released, and in the case of carpal tunnel to use a Samiller retractor, in the distal aspect of the incision in the skin to avoid cutting the skin when coming out with the endoscopic blade.

I saw that when performing the synthesis with a self-compressing scaphoid screw, in the case of proximal pole fractures, smaller sized screws (6 mm) can be used to the scaphoid, thus avoiding the risk of inadvertent protrusion of the distal end of the screw.

I saw for the first time the arthroplasty of the IFP and MCF joint with the use of silicone prosthesis, and here you to access the IFP joint you perform a section of the extensor mechanism at the level of Verdan zone IV, and for the access of the joint you lateralize the extensor hood.

Specify three to five of your favorite procedures and/or newskills you acquired.

After a thumb replantation, the John Hunter Hospital protocol includes the use of leeches as one of the measures to avoid venous congestion. And as reported by the hand surgery team of the hospital, it has a low level of complications and is well tolerated by the patients.

Rhizarthrosis is the arthrosis of the metacarpophalangeal joint of the thumb, I had the opportunity to see how here they first perform the passage of the wire for suspensoplasty from the 1st to the 2nd metacarpal, (Fig. 1) before the trapezoidectomy, allowing its height to be totally anatomical, (Fig. 2) which would avoid complications related to a bad trajectory.

Fig. 1. Passage of guide wire, from the 1st to the 2nd metacarpal.

Fig. 2. Radiography showing maintenance of the relationship parameters of the 1 and 2 metacarpal bones.

Dupuytren's disease is a pathology that after surgical resection has a high percentage of complications due to hematoma formation with subsequent suture dehiscence. Dr. Brett, to facilitate the drainage of the hematoma, does not close the transversal portion of the zetaplasties performed, after the longitudinal incision to approach the pathological cords.

Which procedures could you potentially adopt in your future practice and how do they compare to your experiences at home?

A good number of the techniques I saw can be incorporated into my future practice in Brazil. The initial suspensoplasty before trapezoidectomy in cases of rhizarthrosis offers the opportunity to maintain the anatomical height of the first metacarpal bone; zetaplasties for the incisions in cases of Dupuytren's contracture, without suturing the transverse portion, are an option to avoid hematoma formation and accumulation.

I also hope to bring to Brazil some of the lessons I have learned about the management and coordination of the operating room team at John Hunter Hospital to achieve an increase in efficiency in operating room productivity for the benefit of the patients.

What was the most significant personal experience of the scholarship for you (e.g., cultural exchange)?

The personal experience of greatest significance to me was the possibility of experiencing the efficient operation of the operating room in Australia.

Allowing a quality service but with the possibility of performing a high number of procedures per day to be able to give a rotation to the large volume and demand of surgery in the hospital.

Do you have any tips for future scholars (related to housing,traveling, etc.)?

It is very helpful to book a hotel within walking distance of the IBRA center well in advance, as they are generally in high demand. Arrive well in advance in the city where the IBRA center is located to plan the fastest route and visit the sites, to know how to get to each important location in the hospital.

Give your phone number to the surgical coordinator, and to the doctor(s) you are visiting, so that if there is a schedule change or something unforeseen they can easily communicate with you.

Acknowledgments

I would like to thank IBRA for supporting my wonderful visit with Dr. Brett McClelland and Dr. Tanya Burgess, along with the entire hand surgery team at John Hunter Hospital in Newcastle. I learned so much and above are just a few of the many highlights I made during my fellowship. It was very beneficial for me to experience different ways of working and to make friends and mentors from the John Hunter Hospital hand surgery group for the future.