UKGM UNIVERSITÄTSKLINIKUM MARBURG

IBRA International Bone Research Association

International Bone Research Association (IBRA)

IBRA Program C Scholarship Report

(December 2018 – March 2019)

Host Hospital: Department of Oral and Maxillofacial Surgery, Universitätsklinikum Gießen-Marburg, Standort Marburg.

Head: Prof. Dr. Dr. Andreas Neff

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Introduction

First of all I would like to thank IBRA for giving me this unforgettable opportunity of being aboard in a highly qualified center as part of my residency. Moreover, I would like to express my deepest gratitude to Prof. Dr. Dr. Andreas Neff and the wonderful group he leads (including senior, junior and assistant doctors) who made my stay in Marburg really comfortable and pleasant.

Why Marburg?

Well, I tried to choose a center where I could see other surgical procedures as part of the integral treatment of different pathologies in the oral and maxillofacial field. The department of Mund-, Kiefer- und Gesichtschirurgie at Universitätsklinikum Marburg is a highly qualified center that covers every aspect of the OMS with emphasis on temporomandibular joint (TMJ) disorders, endoscopic-assisted procedures and tumor surgery. As I wanted to improve my knowledge in TMJ and tumor surgery, I chose this IBRA training center.

The daily activities

Every day at 7.30am the whole team got together at the briefing room, where the early meeting took place. The person who was on duty the night before started talking about the patients treated on the emergency room and presenting inpatient admissions (if necessary) during his duty. Afterwards, the daily program was projected on the big screen as well as images or relevant data about any other out- or inpatient´s progress/treatment who was worthy of discussion. As every Wednesday 16.00pm an interdisciplinary tumor conference took place, patients of the OMS department to be discussed there were shortly presented to the whole team during this early meeting before that conference. Moreover, activities for each team member were monthly planned and divided daily into: ward and on call duty; outpatient and acute day ward; outpatient’s surgery under local anesthesia and finally surgery under general anesthesia at the central B operating room. Shortly after, the

ward round was followed, so that everybody could start and fulfill their assigned activities on time. The day ended mostly between 17.00 and 17.30pm.

The facilities

The University Hospital of Giessen and Marburg (Marburg site) is based in Marburg in a wonderful and enormous location on the top of the Lahnberg hills. The department of oral and maxillofacial surgery has four ambulatory operating rooms (one of them used for laser procedures) and one room for orthognatic surgery planning on the first floor. The outpatient clinic is located on the ground floor and there are 6 rooms, ultrasonography and orthopantomograph. The central B operating theater is located on -1 floor and it is the place where the OMS, otorhinolaryngology and ophthalmology departments carry out their surgeries, what expedites the interdisciplinary work. Besides, the OMS and ophthalmology departments share their inpatient ward on the 1st floor.

Aim of the scholarship and personal experience

As written before, I chose this IBRA training center because I wanted to improve my knowledge in TMJ and tumor surgery and now I can tell it was the perfect decision. During my residential stay at the UKGM I was able to see more than 150 surgical procedures, covering the whole spectrum of the oral and maxillofacial surgery: dentoalveolar surgery, trauma, orthognatic surgery, benign and malignant tumors, TMJ, cleft lip and palate, medicament associated osteonecrosis of the jaws (MRONJ) and osteoradionecrosis of the jaws. TMJ, MRONJ and tumor surgeries were really frequent, so I received a lot of knowledge in the areas that I was mostly interested in during the program.

To be more specific I learned new techniques such as surgical management of fractures of the condylar head through a retroauricular

approach. I saw this approach in this center for the first time and I had the great chance to see it repeatedly. Not only was the approach new for me, but also the intraoperative use of microplates before the final fixation of the condylar fracture with small fragment screws. The approach was minimally invasive and the results were excellent, even in cases of multiple fragments condylar head fractures.

I would also like to point out at least two relevant issues regarding osteosynthesis in mandible reconstruction procedures. One of them is the use of the new medartis TriLock® Bridging Plate System in segmental mandibular resection cases. I realized, that this system really improves the traditional reconstruction plate in terms of adaptability because of its overall structure (bendable side elements) and reduced thickness. The second novelty for me was the mandibular temporary condylar head prosthesis attachment for the modus reco® 2.5 plate. I found this complement very useful in terms of vertical adjustability and stability for patients who undergo treatments that include mandibular resection (including condyle process) and reconstruction with free fibula flap.

Another surgical field of which I could see a different treatment to the one that is done in my hospital, was the orbital floor fractures. As we always use titan mesh for this type of fractures (when surgical treatment indication), the use of polydioxanone (PDS) foils in small defect size fractures was new for me. I could see a big amount of pre- and postoperative surgical management of this type of fractures using PDS foils and I found it really interesting and convenient in terms of surgical timing.

Last but not least I would like to mention two interesting surgical procedures I saw during the program: Patient specific peek implant cranioplasty after tumor surgery and double-skin radial forearm free flap to repair a big cocaine induced oronasal fistula. Both treatments were not only surgically interesting, but also included 2 stage surgeries, which I had the opportunity to see them both due to the 3 months duration of the program C. In the first case it was a two stage surgery, because the

patient had a tissue expander, in order to create enough soft tissue to cover the site completely in the cranioplasty procedure.

During the period of the Program I could also attend to a conference in the main auditorium of the hospital about the interdisciplinary treatment of head and neck tumor patients. The department of OMS of UKGM is member of numerous interdisciplinary centers, including the *Anneliese Pohl Comprehensive Cancer Center (CCC)*. For that reason and in the context of this center, a conference was carried out including speakers from otorhinolaryngology, OMS, phonoaudiology, radiotherapy and interventional radiology among others. In this occasion I learned a little bit about the Carbon ion therapy (C12) for malignant salivary gland tumors of the head and neck, as very few centers all over the world offer Carbon-ion radiotherapy and Marburg is one of them.

Conclusion:

It has been a very rewarding experience in terms of knowledge, as I could profit greatly from the OMS department at the IBRAs training center in Marburg. I am looking forward to implement in Argentina some of the acquired knowledge during this IBRA scholarship program. Regarding intended research publications, I will continue working in my PhD on MRONJ and I would not doubt to contact Prof. Dr. Dr Neff to work together in collaboration, as the department he leads has a vast experience on this field. Again, I want to thank IBRA for giving me this unique opportunity and the whole OMS department at Uniklinikum Marburg for being really kind with me making me fill like home.

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Part of the great team of the OMS department: Surgeons, surgical nurses, helpers and secretary.