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Report

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Until recently, Urogynecology was the only OB-GYN subspecialty that did not have a good diagnostic tool for assessing pelvic floor dysfunctions in its repertoire. We have MRIs and dynamic MRIs, but those are expensive, not readily available. As the etiology and natural progression of pelvic organ prolapse and urinary incontinence are still not well understood, we also needed a good tool to be able to study these processes. Transperineal ultrasound is a new modality that can do all that. I first heard about it as an OB-GYN resident, I became very intrigued by it and hoped to be able to learn it one day. The opportunity came when I met Dr Hans Peter Dietz, an urogynecologist from Australia who in my opinion is the pioneer of transperineal ultrasound. I attended his workshop during one of the AUGS meeting and met him personally afterwards. He suggested that I visit his unit for a month and learn it. It sounded easy I just had to find a time and money to make this kind of a trip. During my tireless search for funding I found out about the IUGA observership. I applied for it and was lucky enough to receive it. This award allowed me to travel to Penrith, Australia and spend 6 weeks there working with Dr. Dietz.

I arrived in Australia during the first week of January, few days before my observership start date. I wanted to get over the jet lag, get used to the new place and settled down before my start day. My housing arrangement was very convenient as I was staying with the program coordinator. She showed me around, explained how to get to the hospital using local transportation. She also gave me an orientation at the hospital, the clinic and the research building on my first day of observership. I had to meet with hospital representative who interviewed me and reviewed my application as well as immunization records to determine if I could be present during clinical activities with Dr. Dietz. This was a new requirement, just instituted by the University of Sydney and it took few days before I got the final OK. After that initial slow start everything else was just great.

The first few days I spent reading Dr. Dietz' ultrasound book to learn the basics about transperineal ultrasound, the techniques, different images and different conditions that it can be used for. Following this, I had to learn to use the special ultrasound software that everyone here was using to analyze ultrasound images. Here again I was provided with a manual to read and case studies to practice on. Once I was comfortable with all that, I had to undergo series of tests to check my proficiency of analyzing images and taking measurements etc. This was a standardized test with a very high cut off for passing. Everyone working with Dr. Dietz, the visiting scholars as well as student are all required to take that test, to assure that all data coming out of this unit is high quality, reproducible and uniform.

Once I passed my tests and was ready to independently analyze ultrasound images I met with Dr. Dietz and we discussed possible research projects. Dr. Dietz has a running list of projects ideas and lots of data available for analysis. It took us one day to figure out exactly what I will be working on. I was very excited about it.

The title of my study was: “Recurrence after prolapse surgery: does partial avulsion matter?” It involved analyzing over 500 US images done in patients who previously underwent prolapse surgery. We were interested to see whether partial avulsion of levator ani muscle is a risk factor for prolapse recurrence after surgery. From now on every time that I was not busy learning ultrasound and scanning patients I was working on my research project. Couple of weeks into my observership I met a visiting student from United Kingdom who was interested in joining me. She went through the same rigorous training and evaluation before she was able to start. I was able to help her through this process. The opportunity to mentor a student and teach her things that I just recently learned myself was very valuable to me.

My clinical activities were arranged around what was going on on the unit. I tried to be involved in as many of them as I possible could. Every Tuesday Dr. Dietz was seeing patients in one of his diagnostic centers. This was a whole day spend on doing complex testing on patients with a wide variety of pelvic floor disorders. Each patient underwent urodynamics, cystoscopy as well as transperineal ultrasound. Dr. Dietz himself obtained history from the patient prior to testing as well as discussed results of the testing and provided counseling at the end of each session. I was able to listen to these sessions as well as actively participating during the scanning. Once I mastered the technique I was doing most of the scanning myself with Dr. Dietz’ supervision. I had to learn to be quick and efficient as many patients were booked on those days and we had to move quickly. It was intense but very rewarding. I was seeing a lot of abnormalities and learning a lot. Dr. Dietz took every chance he had to teach me something new. These were my favorite days.

Every other Thursday we would go to another diagnostic center that was about 1 hour away and there was no good train connection for me to get there. Dr Dietz would offer to give me a ride to and from that diagnostic center. Driving there was another hour with him teaching me about ultrasound. He has so much passion and knowledge about the transperineal ultrasound that listening to him is just so fascinating and motivating. It makes you want to learn this technique and be able to use it in assessment of different pelvic floor disorders as there is still so much more we do not understand about them.

Every Friday Dr. Dietz and his fellows would run a pelvic floor disorders clinic for their patients. These were patients referred to Dr Dietz for evaluation, patients he operated on, or patients who were in one of his research projects. Many of these patients would receive transperineal ultrasounds during visits. This was another, great opportunity to learn and practice scanning skills. This clinic was mostly run by the fellows. It had a slower pace and I found it perfect for finessing the technique, not only getting better at scanning but learning about setting on US machines, how to get high quality images, how

to save them for later use and how to trouble shoot. These, I felt, were the most important things to learn, so when I am back in the US, and trying to incorporate scanning into my practice I will know how to handle. At the end of each clinic Dr. Dietz and all fellows would get together and reviewed all the patients who were seen that day. We looked at interesting ultrasound images and discussed the unusual cases. It was another great teaching session by Dr. Dietz and an amazing learning opportunity for us.

One other clinical activity that I was involved with was surgery. Every other Thursday, when not at the diagnostic center, Dr. Dietz would operate. I was able to be present in the operating room and observe. As surgery is a passion of mine I was very intrigued to see what Australian surgeons do in an operating room. I saw a couple of incontinence procedures, midurethral slings that were done in a very similar fashion to how we do them back at home. I also saw a very different approach to a posterior colporrhaphy. Based on his ultrasound images as well as thorough examination, Dr Dietz feels that in a true rectocele there is always a transverse defect in a rectovaginal septum, one that he can almost always identify in the operating room. The goal of his rectocele repair is correction of that defect. Postoperative images of patients who underwent such repairs clearly show that the preoperative defect is no longer present after successful surgery. Here I saw another use of ultrasound that helps in understanding underlying pathology and assessing successful surgery and also allows to monitor what happens with repairs overtime.

As mentioned before outside of these clinical activities majority of my time was spent on the research project. Data for my patients came from 5 different studies and surgical audits. I had to search a huge database to find each one of them. The next step was to find the best images, adjust them to be able to see the levator ani evulsion if one was present, and then judge whether it was a complete or partial avulsion. All data had to be entered into a spreadsheet. Once all images were analyzed we combined all 5 groups. The ultrasound data, demographics, as well as pre-operative and post-operative data that included examinations and POP-Q testing were merged together. One of Dr. Dietz' fellows was very helpful in assisting me in this part of my project as the database was very complex and transferring information from one spreadsheet to other had to be done in a very systematic fashion otherwise it was very easy to introduce errors as often times these 5 sub-databases were set up in different ways.

The last couple of days of my observership were spent on running statistical analysis. We first did simple statistics by ourselves, but differed to the statistician to run the logistic regression. I was very excited to be able to complete all this before leaving Australia.

In short, 6 weeks spent with Dr. Dietz not only that I learned about the transperineal ultrasound, I also became proficient in scanning patients and obtaining images even in very challenging cases. I was able to complete a high quality, research project, that later this summer was accepted and presented as a podium presentation at the annual International Continence Society meeting in Barcelona. I learned a tremendous amount working on this project.

If it wasn't for a great organizational skills of Dr. Dietz most of this would not be possible in 6 weeks. Dr. Dietz' unit is extremely productive. It is geared towards research. There are fellows from all over the world who come to work with him, just like I did. Dr. Dietz' passion for Urogynecology and transperineal ultrasound is contagious, he motivated us to work hard and accomplish our tasks. He is a perfectionist and he expects a lot from his fellows. His standards are high, but he is also an amazing teacher, who is always there to help and answer any questions. He sees every moment as a teaching opportunity. I did not mind putting all this hard work into it as I knew, I was getting so much back in a form of knowledge and skills I will take all this with me to use in my professional career, wherever I end up practicing.

Another thing that really stood up is how well this Urogynecology unit was organized. Dr. Dietz was supervising everything but just as critically important were his fellows. There were people there who came for 2 years and those like me who only spent few weeks there. Fellows with more training were expected to assist and teach the new comers. They were all dedicated to teaching and always available to help. Even though, I was one of the new fellows, I also had a chance to contribute when the new student came in and wanted to work with us for a few weeks. I already knew enough to be able to share my knowledge with her. Teaching her solidified my skills and what I knew, and was very enjoyable. It broke the routine of long days when I was just reading ultrasound scans for hours and hours. It was so easy to become a part of this big family, and be able to contribute to its great success.

Dr. Dietz' unit produces tremendous amount of research every year. Many abstracts are presented at each of the meetings as well as many papers that come from his unit are being published in peer reviewed, high quality journals. That speaks volume about the quality of work that gets done here. Just being able to see and experience how this unit functions was in itself a great, learning experience.

I feel that I also need to mention a sentence or 2 about the facilities. The fellows' room, where we all worked, was located on a 3rd floor of a brand new, state of the art building. We all were assigned to desks with computers and access to ultrasound software that most of us were using. Having all the fellows in one space was very helpful. Here was always someone there to ask for help. We shared stories about unusual cases, reviewed images together. Fellows' clinic was on the first floor of the same building. Every room in the clinic was equipped with a new GE ultrasound machine. There were always plenty of US to use and practice with. The diagnostic centers were also new, and well equipped. We used a portable ultrasound in some of them. This was a small unit that Dr. Dietz would bring with him in a little travel bag on wheels. It worked just as well and it was nice to see a variety of ultrasound machines and learn about their advantages and disadvantages.

The night before my departure Dr. Dietz organized a good bye dinner. All the fellows were invited. It felt like over the last 6 weeks we became one big family. After dinner we all end up in Dr Dietz' house for desert and he himself was serving ice cream. It was just

another example of how dedicated he is to his fellows, that he appreciates our work and that we are all there to have a nice time too.

Since I left Australia, I have already seen Dr Dietz and most of his fellows twice at different meetings. I hope that my collaboration with him continues and that my friendships stay strong in the years to come. I also can wait to go back to Australia but this time to explore this beautiful country that I only got a small taste of on my free weekends.

I would like to sincerely thank the International Urogynecologic Society for their scholarship. I could have not done this without their support. The scholarship covered my plane ticket, housing as well as daily transportation to and from work. For someone like me, on a limited fellow's budget, this observership would not be possible. I commend IUGA for their vision and willingness to help physicians in training to follow their dreams and reach their goals. My observership experience was outstanding, it surpassed any of my expectations and I feel extremely lucky that I was able to do that. I hope this report will provide information for those interested in visiting Dr. Dietz, but I also very much hope that it will motivate people to find what they feel passionate about and go for it. It is all within a reach for those who are not afraid to try.