THE "SCENIC ROUTE"

DUAL QUALIFICATION IN ORTHOPAEDIC AND HAND SURGERY

Text by Dr Soumen Das De

I have wanted to be a surgeon since medical school. Surgery was a combination of my favourite subjects – anatomy, physiology and pathology – and the work was fast paced and required a high level of technical proficiency. I was impressed by the way surgeons always appeared calm and confident, and carried themselves with a certain swagger, much like fighter pilots!

Finding my specialty

It soon became clear that there were two groups of surgeons – the "visceral" ones and the "reconstructive" ones. The former restored or improved function in vital organs, like the heart and kidney. The second group concerned themselves with improving the function and appearance of a physical, externally visible part that one could feel and move; I was instantly drawn to this. Reconstructive surgery, however, proved to be a massive field. One of the benefits of the "old" training system was the opportunity to rotate through multiple disciplines before committing to a training programme. After working in both orthopaedics and plastic surgery, I found them equally exciting and rewarding.

Amid this dilemma, I joined the Department of Hand & Reconstructive Microsurgery (HRM) at the National University Hospital (NUH). I was fascinated by the scope of work there. Although small, the human hand is a complex machine with multiple, finely integrated parts, much like an intricate Swiss watch. Mutilating hand injuries often involve a composite loss of skin, bone, nerve, tendon and blood vessels. The concepts and techniques required to repair each of these are very different but the surgeon needs to execute all of them with the highest level of proficiency. Sterling Bunnell – the founding father of hand surgery – had clearly articulated many years ago the very reason that attracted me to this specialty: *"The surgeon responsible for the hand should control the composite situation unhampered by anatomical limitations, so that he might approach the problem from the functional standpoint. The hand surgeon must work… in 3 overlapping specialties: Plastic, orthopaedic and neurosurgery."* Hand surgery was an *"area specialty, not a tissue specialty".*

A different route

Singapore is one of few countries in the world where hand surgery is a separate specialty, with its own regulatory body and residency programme. However, the purist in me decided to do orthopaedics first because it seemed logical to study the entire musculoskeletal system before going deeper into a part of it. Over time, I learnt how to assess limb injuries, fix fractures and replace joints. More importantly, I began to understand the nuances of each *type* of tissue. Many people think that "orthopods" have lost touch with general medicine and are not very good physicians. The truth is that the musculoskeletal system is extremely complex and diverse. Orthopaedic trainees have to know the regional anatomy and surgical approaches to multiple body parts. We also need to grasp the unique biology and pathophysiology of bone, cartilage, ligament, tendon, nerve and muscle, and even attend university-level biomechanics courses. It is no wonder that we find managing blood glucose so daunting!

In order to be dually accredited, I had to undergo three additional years of training in a dedicated hand surgery unit after completing orthopaedics training. I obtained a matched fellowship in hand and upper extremity surgery at the renowned Hospital for Special Surgery in New York, US, a hospital dedicated solely to the treatment of musculoskeletal problems. The clinical

work largely comprised elective surgery and there was a high volume of arthritis, tendinopathies and fractures, as well as conditions that we rarely encounter in Singapore, such as Dupuytren's contracture and Raynaud's disease. It was exciting living in the heart of New York City for a year and I still value the friendships that I made then.

The comfortable pace of fellowship was in direct contrast to the following two years that I spent as a senior resident in NUH HRM. Our unit deals with a very high volume of "hot trauma" cases, ranging from finger amputations to severe mangling injuries of the upper limb. Because of our skill set as microvascular surgeons, "hand" surgeons are routinely involved in complex lower limb injuries that require emergency revascularisation and soft tissue coverage. The work was gruelling and it was not uncommon to operate non-stop for ten hours at a stretch. I had to work hard to understand plastic surgery concepts and pick up technically challenging procedures like replantation and free tissue transfer.

There were moments, though, when I struggled to keep my spirits up. I was older than my fellow hand residents, and my orthopaedic peers had already progressed to being consultants with independent practices, drawing generous salaries. It was also difficult to come home and just "crash" after a sleepless night on call, when there were other "real-life" responsibilities that came with age. And not to mention having to prepare for a second exit examination!

And the training continues

I finally became dually accredited in orthopaedic surgery and hand and reconstructive microsurgery in 2016, 13 years after leaving medical school. Do I regret the decision to take the more "scenic route", as one of my colleagues calls it? Not for a moment! I do not think that doing orthopaedics first has made me a superior hand surgeon. I have many friends who became hand surgeons via the usual route and are extremely talented surgeons. However, orthopaedic surgery has given me a solid foundation and a thorough appreciation of the musculoskeletal system. The concept of "dual training" in hand surgery is also not new. In my department alone, we have 12 other hand surgeons, three of whom are also board-certified in plastic or orthopaedic surgery. This makes for a very nurturing and multifaceted working environment. And the training hasn't stopped. I am still faced with operations that are challenging and require several specialists to work together to achieve a good outcome. The few years I "lost" appear minuscule when weighed against the skills I have gained for a career that will hopefully span decades, long after the fighter pilots have retired to desk jobs!

After all, it isn't really "work" if you enjoy every minute of it. And so, my advice to aspiring residents: If you enjoy something, go "all in". ◆

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