SHORT COMMUNICATION

Surgical subspecialty training outside Malaysia during COVID-19 Pandemic: Perspectives and experiences of Trainees

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SUMMARY

Subspecialty surgical training is an integral part of continuous professional development. It represents a unique opportunity for surgeons to enhance and develop specific advanced skills in their sub-disciplines. Hence, hands-on training in an international training centre abroad allows one to bring home new technical and management skills in the expansion of Malaysian surgical services to raise to be on par with the international standards. The unexpected onset of the COVID-19 pandemic brought in previously unknown hindrances to the training both locally and abroad but our success in engagement with international centres despite the pandemic restrictions serves as a valuable experience towards maintaining international networking for future collaborations.

KEYWORDS:
subspecialty surgical training, Covid-19, experience, Malaysia

INTRODUCTION

The practise of general surgery is constantly evolving. Numerous factors such as advances in surgical knowledge, techniques, and technology, as well as patient and physician preferences, have driven an increasing number of surgeons to specialisation.[1] It is important to recognise that training is part of the continuum of learning in medicine.[2] It allows surgeons to develop niche-specific skills set beyond the scope of basic general surgery training. Thus, to achieve competency in order to improve patient outcomes with subspecialisation, it is prudent that trainees are adequately exposed to high-volume cases[3] during their three-year program under the Ministry of Health (MoH), with the option of an overseas attachment in the final year. As the MoH has no formal international collaboration with centres overseas for fellowship training positions, the procedure was purely self-initiated by the trainees. The process turned out to be tedious with the emergence of the COVID-19 pandemic. Many affected ones resorted to continue training in local universities. The trainees' supposed timeframe of program completion was also inevitably extended. However, we were successful in our continued pursuit for a fruitful training program in European and Asian centres, respectively. Not only did we achieved significant operative case volumes exposures despite the global slow-down in non-emergent surgeries, but we also witnessed their mitigation of the disease while maintaining continuous oncological surgery services during the pandemic.

Tan Yee Ling: Breast Surgery Fellowship at National Oncology Institute of Budapest, Breast and Sarcoma Surgery Unit, Hungary.

I was accepted as a training Associate Clinical Fellow post in Breast Surgery at the Hong Kong Queen Elizabeth Hospital in January 2020 but was denied entry at the onset of the COVID-19 outbreak. The process of re-application for another training centre, while the world was affected by the outbreak, was daunting and tedious. Fortunately, I was granted a second observership post in Hungary in July 2020. The legislation process took double the time during the pandemic, and I was further delayed for another three months. At the time of my arrival, Hungary was managing 5000-6000 cases of COVID-19 patients per day and the country was in a state of medical crisis. I had no clear information on the quarantine duration amidst the chaos. I was deemed safe to report for duty after two serial COVID-19 Rapid Antigen Kit tests. As the institute provides purely oncological services, the elective cases were conducted as usual; up to 40 primary breast cancer surgeries per week despite the pandemic, a total of 1260 cases by December 2020.

All breast cases were subjected for discussion in Multi-Disciplinary Team (MDT) pre- and post-surgery. The unit has a high bed turnover time, with a maximum length of inpatient stay of two days if surgery was uneventful. An observation worth highlighting was the use of intravenous propofol infusion as induction and maintenance for all breast surgeries. This facilitated a rapid patient turnover time in the operation theatre. All patients were discharged with drains and reviewed weekly in the outpatient clinic. Histopathological results were reported within two weeks and adjuvant treatment commenced within four weeks from surgery. For patients with positive COVID-19 PCR test results, they were rendered hormonal treatment if feasible, until two new negative swabs were achieved before they were allowed to proceed with elective surgery three months later. On the other hand, the hospital healthcare workers were screened weekly for COVID-19 infection and were all inoculated with two-dose vaccination by the end of January 2021.

Out of the initial 486 breast surgeries done during my first four months of stay, 70% comprised of oncoplastic breast-conserving procedures (BCS), 25% were skin/nipple

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preserving mastectomies with immediate two-stage reconstruction using silicon expanders implants, 4% was conventional modified radical mastectomies without reconstruction and 1% delayed reconstruction (permanent implant change and contralateral symmetrisation procedures). Axillary surgeries were sentinel node biopsies (85%) and axillary clearance (15%). This large volume of cases was equivalent to my one year of case volume in Malaysia.

On top of the operative skills, theoretical learning was fully virtual and seemed to be well incorporated into the Europeans Surgical Society. I was able to participate in numerous local online conferences and webinars, organised by the institute as well as the European Society of Surgical Oncology. The social environment during my stay was very different from the pre-pandemic time. As there was no complimentary dormitory provided by my institution due to the pandemic, I resorted to a single apartment rental which incurred half of my monthly scholarship allowance. A sense of desolation was inevitable, but I had to adapt quickly. My time after work was used to learn a second language (Hungarian) for the need of communication with patients and colleagues.

Given that the rate of breast-conserving surgery was reportedly low in Malaysia as influenced by independent factors such as the presence of breast sub-specialist surgeons,[4] this large volume of operative knowledge gained would certainly benefit the subsets of Malaysian women with early breast cancers treatable by oncoplastic breast surgery. The adversity encountered during the entire training in an unprecedented time of pandemic made me more resilient and adaptive, which are all important non-operative technical skills as a modern time surgeon.

Elaine Hui Been NG: Colorectal Surgery Fellowship, China Medical University Hospital Taiwan

I went for my Colorectal Surgery Fellowship focusing on minimally invasive surgery (laparoscopic and transanal approaches) in Taiwan just when COVID-19 started making headlines in East Asia. The first five months were saddled with lower number of cases operated per week due to control of non-emergent patient entry to hospitals and limitation of travel between hospitals in different districts given that I was originally assigned to train in both Hsinchu and Taichung. Despite this, we were still operating on average eight cancer cases per week. At this juncture, laparoscopic surgery was also not recommended globally as a precaution for intraoperative aerosolization of COVID-19 viral particles. However, my centre carried on performing laparoscopic surgeries with careful preoperative COVID-19 patient screening and extra precautions during surgery, successfully maintaining a 90% laparoscopy rate monthly with no positive case or exposure. I was able to learn hands-on laparoscopic colectomies and rectal resections with different anastomotic techniques, transanal minimally invasive surgery (TAMIS), transanal total mesorectal excision (TaTME) and lateral pelvic node dissection (LPLND).

On a personal front, I had trouble procuring face masks and gloves. I was rationed with only 1 mask per workday and had no privilege to purchase face masks from pharmacies as a foreigner. Experience of loneliness with travel restriction was difficult especially when one is still new to the country. Thankfully, the unit and hospital staff were helpful to ensure we were well taken care of in the dormitory especially during quarantine and kept teaching us despite the limitations.

The successful pandemic control in Taiwan was evident by the resumption of normal daily activities and local tourism by June 2020. We were operating 10 to 15 cancer cases per week notwithstanding the minor benign cases by May. I was able to resume training in my second centre by June. Face-to-face meetings resumed in July, and I participated actively in their tumour board meetings and academic teachings along with sponsored participation to various colorectal surgical conferences all over the country. I also participated in combined surgeries and visited other centres including Koo Foundation Sun Yat-Sen Cancer Centre in Taipei. My trainers also encouraged me to write papers with them.

The strict pandemic measures include heavy fines for violating rules such as not wearing face masks on public transportation adopted by the Taiwan Centre for Disease Control (CECC). Daily news updates from the Ministry of Health and Welfare helped to ensure that the public abides by the rules. The Taiwanese displayed an astounding resilience against COVID-19, largely due to their experience with SARS in 2003. What amazes me most is how they were able to maintain their pursuit of excellence in patient care and yet steadfastly teach foreign fellows despite restrictions when every other country is struggling with the pandemic

I count myself very blessed to be in Taiwan for the last 12 months of my fellowship. As I departed from Taiwan, I returned home armed with skills and determination to encourage a laparoscopic-first initiative in my hospital. I would eventually like to expand the scope of laparoscopic colorectal surgery to include pelvic node dissection and hybrid transanal surgery that I learnt during my training in optimising rectal cancer treatment, which are now hardly performed in Malaysia. It is time for my country to move forward in minimally invasive colorectal surgery.

Diong Nguk Chai: Thoracic Surgery Clinical Fellowship, Koo Foundation Sun Yat-Sen Cancer Center, Taipei, Taiwan

My 12-month fellowship in thoracic surgery, Koo Foundation Sun Yat-Sen Cancer Center (KFSYSCC), Taiwan started on the 1st of March 2020 when the COVID-19 pandemic struck two weeks later and forced closures of all international borders, including Taiwan. As thoracic elective surgeries were heavily debated on whether they should be allowed to resume during a pandemic, I was fortunate that my centre was not affected. My objectives were to learn minimally invasive surgery (MIS): video-assisted thoracoscopic surgery (VATS) and minimally invasive esophagectomy (MIE). We operated four days a week with an average of two cases per day or a case a day for MIE, under two thoracic surgeons. The cases we operated on were lobectomy, segmentectomy, subsegmentectomy, wedge resection, thymectomy, esophagectomy, all by MIS where VATS were all uniportal. I was given hands-on experience gradually from assisting initially to operating. My supervisors

were passionate about teaching and keen to share all their valuable knowledge possible to ensure my objectives were met and my training a fruitful one.

As low-dose chest computed tomography (LDCT) was widely performed as a part of medical checkups, many ground glass opacity (GGO) were detected as early lung cancers and were therefore treated with surgery. I learned to reconstruct 3D images based on CT images using software like Horos, RadiAnt and Synapse, as part of the pre-operative preparations for segmentectomies for these lesions. Throughout the preparation, I learned and managed to master the complicated pulmonary anatomy better so as the surgery.

Webinars have become the best substitute for regular scientific meetings/conferences during the pandemic. Fortunately, I attended a few thoracic conferences physically and managed to meet and communicate with other thoracic surgeons. I had the opportunity to be on stage to give a presentation in Mandarin, which was a great experience for me. I also participated in the weekly Tumour Board Meeting by presenting and discussing cases. This reflected how wholesome and thoughtful the fellowship program was by creating all possible opportunities to maximize my exposure here, including learning outside the hospital.

My entire year of overseas fellowship training moulded both my mind and skills towards betterment indefinitely, despite being struck by the unexpected pandemic. The situation has thought me to be resilient to fight the pandemic yet not to compromise the cares for cancer patients at the same time. I am determined to move together with my team back in Malaysia to face the challenges ahead with all that I have acquired, be it with or without the pandemic.

CONCLUSION

Subspecialty surgical training overseas had broadened our experiences and perspectives on how to overcome the enforced pandemic restrictions and yet continue to deliver optimum clinical and academic services for oncological surgery. Apart from gaining invaluable surgical skills, these overall experiences strengthened the non-operative skills in us as well. The good connection established with international colleagues would serve as a platform for potential networking and collaboration, to benefit the future generations of Malaysian surgeons.

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