OPINION

The Truth about Surgery:

Personal anecdotes from a public-sector surgeon (Part 1)

Text by Dr Chew Min Hoe

This is the first article of a three-part series. In this, the author examines the difficulties of a complex surgery and patient care. The next two parts explore the importance of knowing one's ability and capacity, adopting innovation and technology, and developing collegiality within the profession.

I looked at my vascular surgeon colleague across the operating table, my finger pressed on the external iliac vein (EIV), compressing it just enough to prevent a large gush of blood from pouring out from the tear, but careful enough not to cause the tear to enlarge further. We both took a deep breath and reconsidered the options. It was already 10.30 pm and the surgery had begun at 9 am. The patient, Mr CYK, was a fit middle-aged gentleman with recurrent rectal cancer. It was late, we were both tired, but the problem at hand was difficult and critical. This was not a bleed that could be packed with gauze and then relooked at after. It had to be solved there and then. How should we proceed?

Patient history

The original cancer was diagnosed almost six years ago. Mr CYK had a laparoscopic ultralow anterior resection performed in the private sector, with subsequent closure of ileostomy after, at that time. The cancer histology was a stage 3b at T3N2M0, and he had subsequent adjuvant chemotherapy and radiotherapy (RT).

I first met Mr CYK about three years ago when he was referred by another surgeon for a lateral cancer recurrence. The tumour recurrence was among the lateral iliac veins and remained localised after a prolonged course of chemotherapy. Noting that there was no disease elsewhere after extensive investigations, we decided to do a lateral node dissection, excising the tumour while preserving all organs. Surgery was smooth and he recovered well after mild ileus, needing total parenteral nutrition (TPN) for about two weeks. The tumour, however, recurred about a year later and he underwent more chemotherapy. Disease had remained stable and localised thereafter.

I was asked again by the oncologist to consider surgical excision. Over the last few years, cancer biology was slow growing and had remained localised. "Cure" was possible if I could achieve an R0 resection. Patient was also fit and motivated. I had several long discussions with Mr CYK before the surgery. While the tumour was confined and relatively small, he had to accept that the surgery would be highly complicated. This would be his fourth surgery and would require extensive adhesiolysis. I was also very categorical, reminding him that to access the tumour this time we would have to remove all pelvic organs including the rectum and bladder. He would thus have two stomas – one for his bowel

movement and an ileal conduit for his urine, but this would allow better access and hopefully better margin clearance. The tumour was also close to the bony pelvic side wall and the sciatic nerve – necessary for walking. Furthermore, as we would be re-dissecting along the iliac vessels, it would be treacherous with a chance of massive blood loss and possible on-table mortality. This conversation was repeated with his family at least three times and understandably there were many questions and discussion of alternatives. I had also obtained consultations for the patient with the urologist and vascular surgeon to help him better understand the surgical plan.

"Let's go for it!" he stated calmly a few weeks later. His family members echoed sentiments of agreement and support. On the day of the operation, there was a big surgical team – two colorectal consultants, one senior consultant urologist, one plastic surgeon, various surgical assistants and of course, an experienced anaesthetist team.

So this was where we were now. Adhesiolysis, as predicted, took almost seven hours as we laboured to unravel the dense small bowel adhesions to access the pelvis. The pelvic organs had been removed and we were now tackling the tumour along the treacherous iliac vessels. The vascular surgeon had opted pre-operatively to put a balloon into the EIV. This could be blown up to occlude the vein while doing dissection of the lateral veins to reduce bleeding. Unfortunately, as the balloon was blown up, the EIV developed a small rent as the vessel was highly thinned out from both previous surgery and RT. The rent, while small, would gush a large volume of blood as it was a large vein. What made it more difficult was that we couldn't repair it with sutures properly as the balloon wire was in situ. Any attempt at suturing would make the tear bigger and blood loss worse.

After some discussion, we gently removed the balloon guidewire which had been inserted via the femoral vein. This was timed with the anaesthetist who was ready and prepared to ensure that there were adequate blood products in the operating theatre (OT). Every time the wire was pulled, we had to release the pressure on the EIV and there would be some expected blood loss, which was managed expediently in a controlled fashion with fluids and blood transfusions by the anaesthetist. The balloon came out carefully, but repair of the vein was difficult even with small 5/0 and 6/0 Prolene sutures. We finally decided to ligate the EIV completely.

Removal of the rest of the tumour proceeded uneventfully and we concluded the operation at 5 am. The whole operation lasted close to 20 hours and the total blood loss was about three litres. His immediate recovery was uneventful. An enterocutaneous fistula developed in the second week post operatively but it was resolved with intravenous antibiotics, three to four weeks of TPN and bowel rest. His wounds were managed expertly by a dedicated team of wound and stoma care nurses who ensured to prevent painful excoriations and that the enterocutaneous fistula was contained.

His leg swelled up for the initial three to four weeks with edema, but it gradually reduced in size with compression stockings. There was no functional impairment. Throughout his recovery, besides the multiple specialty ward rounds, there were also numerous physiotherapists, dieticians, pharmacists, ward nurses, medical officers and interns who attended to his needs, worked on his mobility and sometimes were there simply to cheer him up and encourage him on. His family remained patient and encouraging despite the setback. His birthday was celebrated while in the hospital and his room was decorated with balloons, streamers and lots of smiles. Mr CYK has since been discharged and is well now and back on chemotherapy. He is walking without aid, cheerful and grateful to the entire surgical care team for managing his stomas well.

The truth about surgery…

This example cited is obviously an extreme case. The majority of operations are less complex and remain standard and routine. But routine operations can also become difficult very rapidly. Patients are getting older and frailer, and younger patients are also loaded with more co-morbidities. At the same time, the rapid changes in technology mean a continuous adoption of new techniques, thus requiring surmounting learning curve after learning curve, even as an experienced consultant surgeon.

The pressure also grows. Expectations by patients and caregivers continue to rise whereby complications are sometimes viewed as incompetence, with a resultant increment in complaints and liability issues. In public institutions, the new Accreditation Council for Graduate Medical Education residency training programme has been more structured and systematic in teaching and appraisal, but posting rotation durations have been further reduced from the traditional six months in the advanced surgical trainee system, to the current four months for senior residency. It is thus difficult to build a strong relationship with the resident, which may ultimately translate to reduced trust in competence, judgement and ability, thus increasing the day-to-day workload of the surgeons. The frequent rotations also mean the consultant gets relatively inexperienced assistants in patient management and an increasingly complex OT environment. That is if the consultant even gets a resident, given the reduced numbers in training due to job limitations and policy changes. Evidently, the multidimensional stressors – both external and internal – of being a surgeon, are tremendous. ◆

Dr Chew works in Sengkang General Hospital and enjoys his work with a good team. He aspires to inspire, connects rather than just communicates, and to continue to do good work in the public sector.