Alexei Makhort

Elective report

Placement – Plastic and Reconstructive Surgery at the Royal London Hospital

Elective objectives:

Describe the pattern of disease/illness of interest in the population with which you were working and discuss this in the context of global health.

Having spent a few months in the plastics department here previous to my elective, I had a clear idea of which areas of plastics interest me most. I find lower and upper limb trauma, replants and microsurgical vascular and nerve repair particularly interesting. Royal London is a major trauma centre in London, so during my elective there was a significant number of trauma cases being referred from A&E and requiring plastic input. Many of them were being done together with orthopaedic/trauma teams, although most of the hand trauma was referred to plastic surgeons directly. Many of the limb trauma patients were young or middle age adults, mostly male, many suffering with injuries from power tools – chainsaws, power saws, grinders and others, at their workplace. Hand injuries were much more common and often involved wounds from glass or animal bites. There was much less discrimination in patient's age and gender for the hand trauma compared with what I noticed with areas more proximal to the body. Some of these injuries take weeks to months to recover from, so they take a toll on both to the patient's health and well-being, as well as potentially their further ability to return to work following injury. Hand dominance and side of the injury also plays a major role in recovery and the patient's ability to return to work. Good examples are patients requiring hand or finger replant. Although the number of replant cases in particular is not large, each one of them costs the NHS thousands of pounds. This is due to a lengthy follow-up period, involvement of many health professionals in the care of the patient in months following injury, often a need to further surgical interventions and a lengthy rehab programme, and initial hospital stay. It also has a global economic impact as the patient will most certainly require months off work, as many of these cases are previously (relatively) healthy adults.

Describe the pattern of health provision in relation to the country in which you were working and contrast this with other countries, or with the UK.

Having done my elective in the UK, in the hospital where I have studied for the last three years, I cannot contrast my elective placement much with the health care provision in another countries or even hospitals. However I can attempt to compare it with my future FY1 placement, in King's Lynn. Although I admit my knowledge of the hospital I will be working in and my future working area is somewhat limited, it is still very obvious that both the population dynamics and quality of available healthcare provision in RLH is very different to Norfolk. RLH is a major hospital, and a major trauma centre, with an air ambulance, a big A&E department and an ability to run one or two emergency theatres 24/7. Although Queen Elizabeth is also a big DGH, with an A&E department, it does not have a HEMS team on site, and does not deal with nearly as many acute trauma cases as does RLH. Even the catchment area of looked after by the hospital is significantly less in terms of population than 2.5million or so people living in East and North East London. As a result, less facilities will be available to take over the complicated care for these patients, and it is likely that many major limb

trauma cases needing replant or other highly specialised surgery will be transferred to Addenbrookes as the nearest major trauma centre. I was however quite surprised to find that RLH has no burns unit and major burns cases are referred to Broomfield at present, which has much bigger plastics department, and a burn unit. Unfortunately I cannot compare the two hospitals in any more depth having spent no time working or shadowing in QEH to date, however seeing as it's part of a different trust, local guidelines may vary in the patients' care but there are many more similarities between them.

Investigate the impact of traumatic injuries on the individuals and their quality of life. Investigate the extent with which reconstructive surgery/replants can provide an individual with a suitable quality of life/return to pre-injury state.

I am going to address this question on the basis of a patient I have seen and been involved in his hand replant surgery at the beginning of the year during my SSC. I have had a unique experience of seeing the same patient a few more times during the course of this year and yet again during my elective so I have got a glimpse of the continuity of care for this patient. I have also got a good understanding of his functional outcome and his subjective feeling about it.

Mr X had a total right dominant hand amputation at the level of metacarpal bones, replanted last year. Since then he has had a few additional surgical interventions. Plates were still in situ and causing him minor discomfort so he wished for them to be removed. He also complained of thickened scar in the first dorsal web space, and clinically he had lax extensor tendons that limited his range of extension at MCPJ, PIPJ and DIPJ of all fingers on the right hand. He was explained that the latter is most certainly due to his previous fracture through the metacarpal bones shortening the length of the bones and causing laxity of the tendons. He was advised against surgery for it until at least a year following initial injury, but agreed to plate removal and release of the scar. Functionally he obtained a very good outcome, with both fine movements and grip strength to an acceptable level. Pincer grasp was also present as was cascade movement in the hand, he had no problem making a fist and had a very good cosmetic result which he was pleased with. For the last few months he had countless hours of healthcare input from multiple health professionals and hand therapy. The patients' whole life has been changed around saving the hand and he has identified it as his main priority for many months. He is still advised against doing any heavy lifting but he can use the hand for much of his everyday activities now and although he has minor complaints as described above, the stuff, the patient and myself we all felt like this was a great outcome. And so with recent advances in replant care and microsurgery this man was at nearly at the end of his long road to obtaining back the function of his hand and being able to work again.

Reflective assessment of my activities and experiences.

I went into this elective with a view to getting loads of in-theatre time and I did manage to assist and even do myself some of the more simple procedures. I have largely improved upon my basic surgical skills like suturing and wound care/dressings, as well as getting to take and mesh skin grafts, insert K-wires, repair a nail-bed to name a few. I have much improved in my anatomy knowledge of upper

and lower limb during my placement. Like I described in part 3 above I got a chance to follow up on a few more complicated cases I met with at the beginning of the year, so this provided me with some insight on the continuity of care in the department and just how much care some of the patients require. Another good example are flap patients, which require a lot of technical skills and dexterity to perform but also a lot of follow-up and observations especially in the first few hours after the graft. Vigilance is the key. But really, I was going into this elective with a view primarily of having some more experience in surgery and hoping it would reinforce my intention to embark on a surgical career. The placement really showed me just how much surgery is a vocation not a job and you need to be prepared to make personal sacrifices and those to your social time. I have enjoyed every minute of it however and I have no doubt in my mind now that surgery is something I intend to pursue.