Perioperative care of the cancer patient - sharing ideas and developing new approaches
Memorial Sloan-Kettering Cancer Centre, New York, 27th – 31st August 2012

The Royal Surrey County Hospital is a regional centre for cancer surgery in the south east of England. We provide surgical services for patients with hepatobiliary, upper GI, colorectal, urological, gynaecological, breast and maxillofacial malignancies. Whilst the perioperative care we offer is already of a high standard – we have been at the forefront of delivering enhanced recovery programs in the UK and have produced clinical outcomes and results that place us amongst the best in the country – we are constantly looking at ways we can develop and improve our working practices in order to ensure we continue to give our patients the very best service. Recently we have developed and implemented an enhanced recovery program for our hepatic resection patients, which has resulted in a reduction in morbidity and length of stay alongside an improvement in patient-reported quality of life. As the anaesthetists principally involved with this, we arranged to visit the world-renowned MSK cancer centre in New York, USA to observe how they work, share our experiences and exchange ideas.

About MSK cancer centre

Based in New York, the MSK cancer centre is the world's oldest and largest private cancer centre. With over a century's experience in caring for all types of cancer patients, the MSK is one of only 41 institutions in the USA that have been designated comprehensive cancer centres by the national cancer institute. They are at the forefront of cancer services and provide specialist care for over 400 different subtypes of cancer. In addition they have produced a great deal of research in the field with currently over 550 clinical trials ongoing.

With regards to hepatic resection, surgeons at the MSK treat more than 500 patients per year, with five-year survival rates of more than 50%. They have developed techniques to help minimise blood loss and transfusion requirements, reduce complications and improve outcomes.

Clinical attachment 27th-31st August

Our team of anaesthetists spent one week in the surgical department at MSK. The clinician sponsoring our visit was Dr Mary Fischer, a senior anaesthesiologist at MSK with a special interest in liver and upper GI surgery. During the visit we were able to build up a picture of the perioperative care or 'pathway' that patients of MSK experienced by spending time in all the relevant clinical areas, talking with patients and staff and observing their practice. As was expected, the differing approaches to healthcare provision in the US compared with UK (private versus publicly funded) gave rise to a number of small differences in practice – for example the use and availability of specific drugs/equipment. However there were many similarities also.

Perioperative care at MSK

Preoperative care

Once surgical intervention has been decided upon, patients undergo a preoperative assessment, are given information about what to expect and a date is booked for their procedure. Some patients will require further investigation/treatment before attending for surgery and this is organised in much the same way as it is in the UK. Patients arrive at MSK early on the morning of surgery and are directed to the preoperative lounge where final preparations are made. Their details are loaded onto the hospital computer system, which is then used to track their progress through the entire department. This system is accessible from each of the clinical areas involved in the patient pathway – preoperative lounge, theatres, post-anaesthesia care unit and 'the floor'(the ward). This ensures that staff in each of these areas know exactly at what stage of the journey each individual patient is and can plan accordingly. In addition, the system contains electronic patient records allowing for a completely paperless system that offers rapid access to real-time, up-to-date patient specific information. Another huge benefit of this system is that it produces a wealth of data that can be easily analysed e.g. to investigate theatre efficiency, patient safety issues or conduct clinical research. Such systems are beginning to appear in the UK, although they are still in their infancy. Having the chance to witness how something like this, once established, can impact upon patient care was invaluable.

Intraoperative care

There were a few major differences to the approach to intraoperative care for patients having liver surgery at MSK. Both our centre and MSK opt for a 'low CVP technique' where the ultimate goal of the anaesthetist is to safely provide an anaesthetic that helps minimise intraoperative blood loss by keeping the patients CVP low during hepatic resection. At RSCH we are advocates of thoracic epidural analgesia to help achieve this, whereas at MSK use of epidurals is almost non-existent as they favour an opiate-based technique. In addition very few of their patients have central lines inserted, whereas ours have them routinely. It was very interesting to see how the patients fared both intra-op and post-op with these differing techniques. There is currently a drive at MSK to increase the use of epidural analgesia and we were able to share our experiences with them. Although it is not possible (or sensible) to say one technique is superior to another for all patients, it gave our group a valuable opportunity to reflect on our own practice and consider new approaches. The use of intra-operative minimally invasive cardiac output monitoring has become a standard of care at RSCH, but its use was in its infancy at MSK and we were able to compare our experience and give some useful insight into getting the best from the technology.

Postoperative care

Following their operation, patients were transferred to the post-anaesthesia care unit (PACU) where they would be looked after for 24 hours post-op. The US PACU offers much more than its UK counterpart, functioning more like a surgical ICU. It is able to manage intubated patients, invasive monitoring, inotropes and goal-directed fluid therapy. In our

centre, patients are routinely transferred to ICU post liver resection, as they often require this sort of care for the first few hours post-op. The US PACU offers this, but without the potential drawbacks of ICU admission e.g. exposure to resistant pathogens, break in continuity of care, care from staff unfamiliar with post-surgical patients and the relevant issues surrounding them. Our experience of the US PACU has shown us the potential benefits to patients of developing a similar system in the UK.

Conclusion

The attachment provided our team from RSCH an invaluable insight into the processes of care provided at a high volume cancer centre such as MSK. It is clear that the UK lags behind the USA in the adoption of the use of information technology. MSK use this to provide powerful information to improve the quality of their care. However, it was informative to see that aspects of our routine standard of care, such as the use of minimally invasive peri-operative cardiac output monitoring are yet to be established in the American system.

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