Response to: “Colonic Interposition After Adult Oesophagectomy: Systematic Review and Meta-analysis of Conduit Choice and Outcome”

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We read with interest the systematic review and meta-analysis of outcomes of colonic interposition after adult oesophagectomy by Brown et al.¹

Our recent paper,² a national audit of colonic interposition in the UK (published in May 2017), was unfortunately not included as it fell outside the inclusion period of January 1985 to January 2017. Our paper, which includes the largest population-based series of colonic interposition operations from the UK, has some useful insights to some of the questions posed by Brown et al. and we would like to comment further for the interest of your readers.

We used national Healthcare Episode Statistics (HES) data to identify the frequency and locations of colonic interposition operations performed in the UK from 2001 to 2015. This included surgery for all indications and 48.1% of patients had a history of previous oesophagogastric cancer. Although HES data has its own flaws including lack of specific surgical detail, HES data is a national database with over 85% surgical coding accuracy³ and therefore addresses some of the issues about publication bias discussed in Brown et al.’s systematic review. Our paper reported on the outcome of 308 patients who had colonic interposition and reported a median in-hospital mortality of 11.1%, which is higher than the pooled mortality of 7.8% reported by Brown et al. This almost certainly represents inclusive coverage of patients from a wide variety of hospitals (i.e. includes low-volume centres and surgeons), thus avoiding Brown’s selection bias.

Our research also included a survey of UK specialist surgeons to assess current practise. In this survey, the left colon

and retrosternal placement was the favoured surgical approach. Reasons reported for this choice included the more reliable blood supply, length of graft that could be achieved and avoiding the use of the caecum which can become dilated in later years. Therefore, our work supports the conclusion by Brown et al.

We assessed outcome of surgery (reoperation with 90 days, emergency readmission within 90 days, postoperative mortality and median length of stay) between low volume (< 5 cases), medium volume (5–10 cases) and high volume (> 10 cases). Although the highest mortality was seen in low-volume centres (< 5 procedures), no significant differences were observed between hospital volume and in-hospital mortality ($p = 0.745$) or any of the other outcome measures. Although we failed to provide firm outcome support and volume outcome relationship for this operation, we still support the centralisation of colonic interposition after oesophagectomy to high-volume centres to minimise patient morbidity and mortality, particularly in countries such as the UK that are densely populated enough to support this model. As Brown et al. has shown, this is an operation which has a high morbidity and mortality and it would be important to centralise expertise for this difficult operation. This would ensure surgeons can develop expertise in this area and that hospitals have the full back up of specialists to rescue patients from complications (such as interventional radiology, intensive care, gastroenterology) and ensure the best possible outcome.

References

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