Letter to the Editor


We value the important comments by Dr. Kendall and take this opportunity to clarify some points raised regarding our study on implementing enhanced recovery after surgery (ERAS) protocols for radical cystectomy [1]. As far as we are aware, our prospective study of 453 consecutive patients within a single institute represents the largest ERAS and radical cystectomy cohort to date [2].

Dr. Kendall raised some important issues.

1. Did the patients receive a standardised intraoperative analgesic regimen?

The 453 patients were anaesthetised by 70 different anaesthetic consultants. There was considerable heterogeneity in specific drug regimens, but most adhered to an anaesthetic regimen detailed in Supplementary Table 1 in our article [1]. In the intraoperative phase, our patients received intravenous paracetamol 1 g and parecoxib 40 mg (if no contraindications), with morphine or oxycodone towards the end of the operation, and insertion of rectus sheath catheters at the end of the operation to deliver 0.125% bupivacaine for the first 48 h. In the postoperative phase, in addition to rectus sheath anaesthesia, patients were given IV paracetamol 1 g (until diet resumed) and patient-controlled opiate (Table 1, points 14 and 24 [1]). The fact that ERAS performs well with so many consultant anaesthetists is testament to the generalisability of its benefits.

2. Which ERAS components are most effective?

Our 26-point ERAS protocol (including audit) is multimodal but not necessarily complex (as each step is simple). Our design precluded specific testing of each component as most were introduced together. When analysing each component in a univariable analysis, all points were statistically significant ($p < 0.001$). "Not inserting a pelvic drain" (point 19) was least significant ($p = 0.04$; Table 3 [1]).

When conducting a multivariable analysis using individual ERAS components, no statistically significant components were found. However, when combining all individual components as "ERAS protocol" and addressing confounders including age, gender, pathology, renal function, Charlson comorbidity index, and body mass index, the effect was significant ($p = 0.002$). Therefore, it is difficult to ascertain which individual components were most effective.

We agree that our design precluded confounding by learning curve (ie, time) and regression to the mean. Both are likely to be present, but their extent is unclear. However, we feel that this may be the best design we could generate as we could not randomise into a randomised controlled trial of ERAS versus no ERAS. We hope that the multiple anaesthetic staff used across this study (many of whom had little cystectomy experience at entry) points to the usefulness of these measures and that they dominate any temporal bias.

Conflicts of interest: The authors have nothing to disclose.

References


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