

DOES SURGEON FATIGUE AFFECT OUTCOMES FOLLOWING ANTERIOR RESECTION FOR RECTAL CANCER?

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Introduction: Surgeons work long hours. There is growing concern that these long hours may contribute to medical errors, and impact patient outcomes. To date there are no studies investigating outcomes related to fatigue in general surgery.

Objective: To determine if patient outcomes following anterior resection are affected by surgeon fatigue.

Methods: All patients undergoing anterior resection between 1994 and 2005 at two university teaching hospitals were identified. Data collected included patient demographics, intraoperative, post-operative and long-term complications, as well as cancer recurrence. Reviewers were blinded to surgeon fatigue status. Cases were categorized as fatigued if the surgeon worked through the night prior to the anterior resection. Results were summarized as means or n (%). Univariate statistical analysis was performed using X^2 , the Fisher exact test, and the Student t test for comparison of relative frequencies and means, respectively. A 2 sided p value of 0.05 or less was considered significant.

Results: Two hundred seventy patients were identified who underwent anterior resection during the study period. Of these, 22 were performed when the surgeon was considered fatigued. The two groups had similar preoperative characteristics. The rates of intraoperative complications (fatigued 14%, rested 18%, $p=0.58$), major post-operative complications (fatigued 9%, rested 15%, $p=0.68$) and long term complications (fatigued 31%, rested 31%, $p=0.9$) were not significantly different between the two groups. Similarly, local cancer recurrence rates (fatigued 0%, rested 7%, $p=0.2$) were not significantly different.

Conclusions: Surgeon fatigue did not influence outcomes following anterior resection for rectal cancer.