

Applicability of Pre-operative Patient Reported Duke Activity Scale Index (DASI) in Prediction of Postoperative Complications in Gynaecology Robotic Surgery

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INTRODUCTION

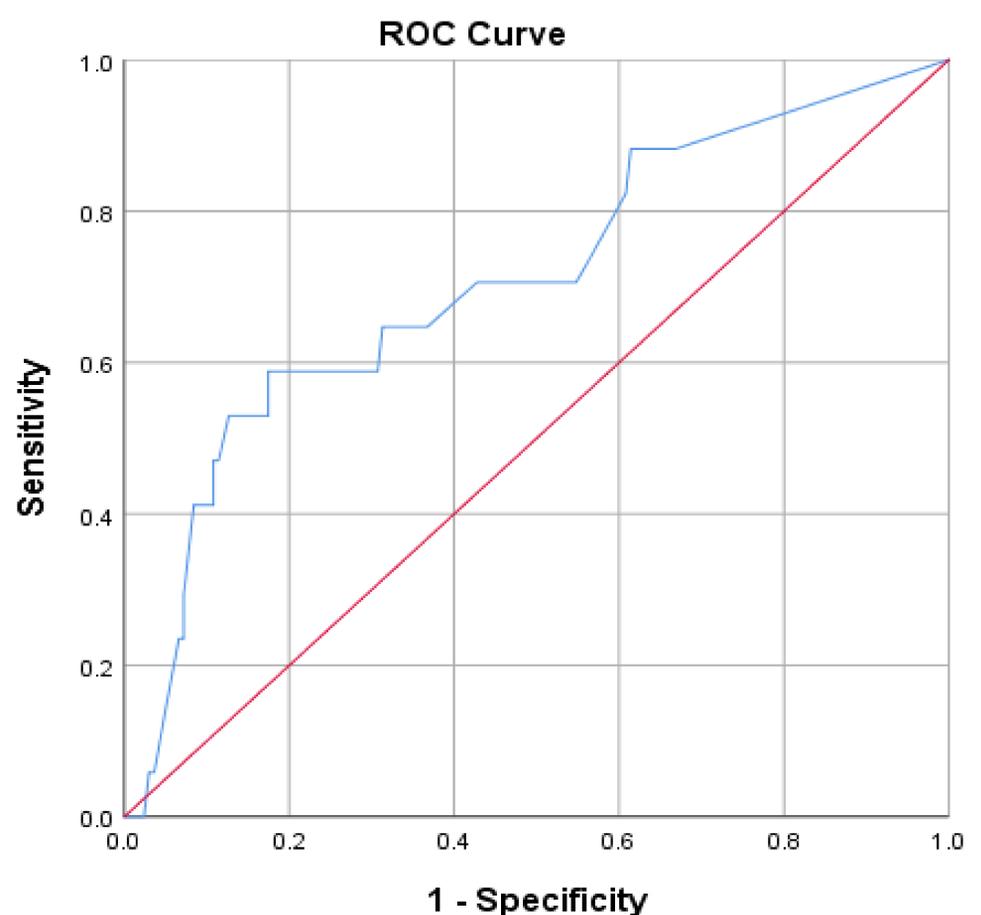
Increase in the incidence of gynaecological cancers has resulted in increased robotic operations, specifically in patients with multiple comorbidities including obesity and frailty. This is often associated with prolonged admission and higher rates of postoperative mortality and morbidity and presents a challenge with an unmet need for an accurate, personalised risk prediction. DASI is a 12-item scale in the form of self-reported questionnaire based around commonly performed activities of daily living. Currently, DASI is used to evaluate patients with cardiovascular diseases, however there is growing interest in utilising it in preoperative setting in different specialities. This study investigates the accuracy of DASI in preoperative prediction of postoperative outcomes in robotic gynaecology.

METHOD

A retrospective cohort study of 183 patients who had undergone a robotic surgery at a tertiary oncology centre. Data collection undertaken through dedicated gynaecology database and missing data collected through patients' records. All patients had completed the DASI questionnaire prior to their consultation. Actual postoperative 30-day complications and the length of stay also recorded. DASI was then compared with the occurrence of postoperative complications.

RESULTS

28/183 were classified as having any type of complications within 30 days of the operation and 17/183 as having serious complications. Our results have shown that the higher DASI score the less likely patients were to have postoperative complications. This result was statistically significant with odds ratio of 0.956 and confidence interval between 0.929 and 0.985. We were also able to demonstrate that for every 5 points further up the DASI score a patient was 0.799 times less likely to have a serious postoperative complication. Hence morbidity prediction of DASI score has been found to statistically significantly predict serious postoperative complications (AUC-0.708) in robotic surgery.



CONCLUSIONS

Our study has shown that DASI self-reported score is a useful predictive tool of perioperative estimation of postoperative complications in the robotic gynaecology surgery. Further analysis with a larger sample size and a multicentre prospective study is currently underway to validate the findings.