

Conference Abstracts

Cancer surgical outcome study in Ethiopia: a 7-day multicenter prospective observational cohort study

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Background

Safe surgery is a fundamental quality indicator within the global surgery framework. Postoperative complications remain a leading global cause of disability, mortality, and economic loss, with a disproportionate impact on low- and middle-income countries (LMICs). This study aims to generate robust epidemiological data on postoperative outcomes specifically for cancer surgery patients in Ethiopia.

Methods

This study employed a 7-day national observational prospective cohort design. The study enrolled adult patients aged 18 years and older who underwent either elective or non-elective cancer surgery in hospitals across Ethiopia. Statistical analysis included descriptive statistics, chi-square tests for categorical variables, and logistic regression models to identify risk factors for postoperative mortality and complications. Outcome measures 7th day-postoperative mortality and complications. Statistical significance was set at $p < 0.05$

Results

A total of 265 cancer surgeries were performed across 46 hospitals (overall surgeries = 4412). The mean patient age was 46.6 years (SD = 14.9).

The majority of patients were classified as low risk ASA physical status classification: ASA I (106/265, 40%) and ASA II (133/265, 50.2%), and low ECOG performance status: ECOG 0 (112/265, 42.3%) and ECOG 1 (98/265, 37%). Colorectal cancer surgery was the most common type (38/265, 14.5%), while laparoscopic surgery was performed in only 3/265 cases (1.1%). Postoperative complications developed in 84 of 265 patients (31.7%), with the leading complication being superficial surgical site infection, 47/265(17.8%). Emergency surgery (AOR = 3.1, 95% CI: 1.1-8.4, $p = 0.003$), comorbidity (AOR = 2.0, 95% CI: 1.1-3.7, $p = 0.025$), and an ECOG performance status of III (AOR = 9.5, 95% CI: 1.5-61.1, $p = 0.02$) were statistically significantly associated with postoperative complications. The overall 7-day mortality rate after cancer surgery was 5/265 (1.9%).

Conclusion

Despite the relatively young age of patients, their low ASA physical status scores, and good ECOG performance, a significant proportion experienced adverse outcomes following cancer surgery: one in three patients developed postoperative complications, one in nine required reoperations, and one in 53 died. These findings suggest a critical need for evidence-based interventions to

strengthen the underlying infrastructure and care processes within the surgical system, which are essential to achieving safe, effective, and high-

quality surgical care for cancer patients in Ethiopia.