

## **Surgical diagnoses and post-operative outcomes of intestinal obstruction among adults in regional referral hospitals, in Dar es Salaam, Tanzania**

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Background:

There is limited available published information regarding the surgical outcomes of intestinal obstruction among adult patients in Dar-es-salaam regional referral hospitals. Objective: To assess the surgical diagnoses and outcomes of intestinal obstruction among adult patients treated in the regional referral hospitals in Dar-es-salaam - Tanzania.

Study design:

Observational hospital based prospective study. Study settings: Dar-es-salaam regional referral hospitals (Amana, Mwananyamala & Temeke) Study duration: December 2021 to July 2022. Methods: Data were collected using a pre-validated clinical sheet. All adult patients with post-operative surgical diagnoses of intestinal obstruction at Amana, Mwananyamala and Temeke hospitals were recruited. Data were analyzed using SAS (statistical analytical software) version 9.7. Results: The study analysed 228 adult males and females with an average of 1411 patients-days of follow-up covering the period of December 2021 to July 2022 (inclusive). The median age was 47 (IQR: 3-6) days. During the study period, 12 patients (5.26%) died, 20 (9%) had surgical site infection, 2 (0.9%) had wound dehiscence while 1 (0.4%) had anastomotic leak. Intra-operative findings identified for intestinal obstruction included adhesions (OR=5.66, 95% C.I. = 4.3-7.1), abdominal tumors (OR=1.028, 95% C.I. = 1.02 – 1.12), hernia (OR=2.04, 95% C.I.= 1.01 – 6.23) and volvulus (OR=4.2, 95% C.I.=3.1 – 5.0). There were no statistically significant differences ( $\chi^2$  test value = 4.992; df= 10, p value = 0.8997) in specific surgical outcomes of deaths, discharged, sepsis, and/or abscondment among the studied hospitals.

Conclusion:

Adhesions, abdominal tumors, hernia and volvulus were the most frequent intraoperative causes. About one-in-twenty of all followed-up patients died during the study period. Almost one-in-ten of all followed-up patients had evidence of post-operative complications. There was no evidence of hospital effects for surgical outcomes in this study. Recommendations: The relatively high mortality rate found in this study has to be worked upon by further studies to reduce it. For the unknown post-operative patients, about one in twenty

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