

ABSTRACT

Background. Frailty describes a state of diminished physiological reserves resulting in poor response to surgical and an increased likelihood of adverse perioperative outcomes. Knowing the burden of preoperative frailty, factors associated with it enables prompt recognition and careful selection of perioperative management strategies to minimize intraoperative complications. Very few studies have looked at the burden of preoperative frailty among elective non-obstetric surgical patients in a low-income country. We therefore sought to determine the prevalence, factors associated, intraoperative complications and in-hospital mortality among elective non-obstetric surgical patients at MRRH.

Methods. We prospectively enrolled 146 patients aged above 18 years undergoing elective non-obstetric surgeries between 26th June to 25th September, 2023 in MRRH. Frailty was defined as a score of ≥ 5 using the 9-point Clinical Frailty Scale. We administered a data collection tool to collect participants' data preoperatively, intraoperatively and postoperatively. The primary outcome was in-hospital mortality among the frail patients and secondary outcomes were the intraoperative complications among the frail and non-frail surgical patients.

Results. Out of 146 patients enrolled, 44.5% were males and 55.5% females. Mean age was 46.9 years. The prevalence of preoperative frailty was 21.1%. Factors associated with frailty included Age ≥ 65 years. aOR=5.8; 95%CI: 2.02-16.82, tertiary education. aOR=17.8; 95%CI:1.09-291.37, moderate anemia, aOR 3.8; 95%CI: 1.03-13.84, severe anemia. aOR=30.9; 95%CI:3.19-300.74. and ASA ≥ 3 . aOR=8.4; 95%CI: 1.74-40.25, traumatic surgical indication, aOR 5.7; 95%CI: 1.54-21.31. The proportion of frail patients who had more than 2 intraoperative complications were 35.5%, higher than the proportion in the non-frail group at 21.7%. Although no statistical difference. p value 0.115. In-hospital mortality among the frail patients was 3.2% compared to the non-frail patients, 1.7%. This did not attain statistical significance, p value=0.605.

Conclusion. Over 1 in every 5 non-obstetric patients undergoing a surgical procedure in MRRH is frail. Frailty is associated with old age, higher ASA status, moderate and severe anemia and tertiary level of education, and having a traumatic indication for surgery. A higher proportion of frail non-obstetric surgical patients develop more than 2 intraoperative complications compared to the non-frail patients and frail patients have a higher in-hospital mortality compared to the non-frail patients. We recommend further research into factors that predict intraoperative complications among the frail patients in order to devise means to mitigate them.