

**A Study Comparing Outcomes of Appendectomy between HIV-Infected and HIV-Negative Patients**

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**Abstract**

*Background:* The high prevalence of Human Immunodeficiency Virus (HIV) has added a new dimension to the management and outcomes of many general surgical conditions in South Africa. However, there is a paucity of data describing the impact of HIV status on surgical outcomes in our setting. Appendicitis is a most common gastrointestinal emergency, and its surgical outcomes in areas of high HIV prevalence are poorly described in the literature. Thus, the aim of this study is to describe and compare the outcomes of appendectomy between HIV-infected (HIV+) and HIV-negative (HIV-) patients.

*Methods:* This is a retrospective cohort study of patients undergoing appendectomy at a large regional hospital over a 12-month period. Demographic data, duration of pre-hospital symptoms, HIV status, surgical approach, operative findings, histopathology reports, hospital stay and complications were recorded. Data for the HIV+ and HIV- patient cohorts were then described, analysed and compared.

*Results:* The study group comprised 134 patients; 18 (13.4 %) tested positive for HIV. HIV+ patients were significantly older (mean age of 29.3 vs. 20.3 years,  $P= 0.002$ ) and had longer duration of pre-hospital symptoms (mean of 3.94 vs. 2.57 days,  $P= 0.03$ ). Postoperative complications (44.4 % vs. 17.2 %,  $P= 0.03$ ) and lengthier hospital stays (7.28 days vs. 5.95 days,  $P= 0.004$ ) were also more frequently seen in the HIV+ patients. There were no differences in appendiceal rupture rates, histopathological findings and mortality.

*Conclusions:* Presentation in HIV+ patients was delayed and surgery was associated with significant postoperative morbidity and longer hospital stay.

**Key words:** appendicitis, HIV/AIDS, outcomes, morbidity, mortality