

# Abstract

**Introduction:** Buffalo Hump is an abnormal fat distribution in the dorsocervical area. It is commonly caused by side effects of antiretroviral therapy (ART). There are different options described in the literature to treat Buffalo Hump. However, there is no conclusion on a better method in terms of surgical outcomes.

**Justification for the study:** At the Chris Hani Baragwanath Academic Hospital (CHBAH) and Charlotte Maxeke Johannesburg Academic Hospital (CMJAH), where this study was based, we use excisional or suctional lipectomy depending on the surgeon's discretion. There is no standard method that is used for surgical correction.

**Aim:** This study seeks to compare the outcomes of excision or liposuction of the buffalo hump induced by HIV treatment to find a better method between the two within our setting.

**Methodology:** The study is a retrospective analytic study. Data was collected from the files of the thirty-six patients operated at CHBAH and CMJAH from January 2006 to February 2020, which comprises of all the patients that were operated in these two hospitals in this duration. No patient was excluded. A comparison of length of hospital stay, seroma rates and theatre time taken on patients operated upon, were compared.

**Results:** Of the 36 participants, 28 and 8 were operated on at the CHBAH and CMJAH respectively. Of the total, 80.56% (29/36) were females. The mean age of the participants was  $46.17 \pm 9.14$  years and on average ART exposure was  $>3$  years. Liposuction was the most commonly performed corrective surgery at a rate of 69.44% (25/36) compared to 30.56% (11/36) for excision. Length of hospital stay following excision (4 days) was longer ( $p < 0.0001$ ; Mean rank = 31) compared to the 2 days reported for liposuction patients. The rate of seroma formation in this population was 5.6% (2/36).

Though no significant difference was observed with seroma formation after both corrective procedures, a 3.8 fold risk was associated with excision at a rate of 18.12% (2/11). No statistical significance was observed in theatre time for both procedures ( $p = 0.22$ )

**Conclusion:** There were differences in hospital stay and risk of seroma formation after liposuction and excision. The observed differences are critical economically and are in favor of liposuction. More prospective studies are needed to make a decision on more appropriate clinical practice.