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OBSTETRIC ANAL SPHINCTER INJURY IN HIV-POSITIVE AND HIV-NEGATIVE PATIENTS: PROSPECTIVE COHORT STUDY OF HEALING AND FUNCTIONAL OUTCOMES.

Hypothesis / aims of study

HIV infection has a profound effect on multiple organ systems. The impact of the disease on a a broad range of conditions is only now becoming apparent. Infective with the HI virus has been shown to affect healing outcomes in The impact of the HIV infection on a broad range of conditions is as yet uninvestigated. HIV research suggests that viral infection per se may have a profound effect on healing. A study looking at healing following haemorrhoidectomy suggested that HIV infection was associated with poorer wound healing than negative controls (1). The impact of HIV on the outcomes of obstetric anal sphincter injury (OASI)vhas as yet bee uninvestigated. The aims of our study were to determine whether HIV-positive patients have a longer time to healing, more complications and poorer functional outcomes OASI than an HIV-negative control group.

Study design, materials and methods

This was a prospective cohort study of all women with acute OASI delivering between September 2008 and July 2009. Initial assessment immediately following delivery included demographics, details of the perineal repair and pre-pregnancy anal, urinary and sexual function. This included a pre-pregnancy perineal pain score, a Wexner Score for anal incontinence, an assessment of urinary symptoms and of sexual function using the Abbreviated Sexual Function Questionnaire (ASFQ). Women were followed up six weeks later, once again assessing them for anal, urinary and sexual function, as well as perineal pain. All women were examined with particular attention to the integrity of the perineum and anal sphincter repair.

Results

Sixty-eight women were enrolled including 54 HIV-negative and 14 HIV-positive women. There were no differences between the two groups with regards to severity of OASI. 36 women attended follow-up including 28 HIV-negative (78%) and 8 HIV-positive (22%). Using Wexner scores (where higher scores indicate a greater impact) at six weeks post OASI, HIV-positive women were significantly more likely to experience solid stool incontinence (mean Wexner Score 0.88 vs 0.11; p=0.041,) as well as a negative lifestyle impact (mean Wexner Score 0.88 vs 0.07; p=0.007) compared to HIV-negative women with OASI. Of interest, postpartum de novo stress urinary incontinence at six weeks was more common in HIV-positive women (37.5% vs 0%; p=0.0078). There were no significant differences in healing, infection, anal sphincter integrity or tone between the 2 groups at follow up.

Wexner Scores of anal continence at 6 weeks postpartum

Mean Wexner Score[§]	Total Sample (n=36)	HIV Pos (n=8)	HIV Neg (n=28)	p-value*
Overall Wexner Score (0-20)	1.3	3.3	0.8	0.082
Solid Stool Incontinence (0-4)	0.3	0.9	0.1	**0.041**
Liquid Stool Incontinence (0-4)	0.2	0.3	0.2	0.904
Flatal Incontinence (0-4)	0.2	0.4	0.1	0.489
Pad usage for purpose of Faecal Incontinence (0-4)	0.4	0.9	0.3	0.140
Lifestyle Impact (0-4)	0.3	0.9	0.1	**0.007**

*independent samples t-test

[§]Score range given in brackets

Interpretation of results

HIV-positive patients experience statistically significantly more solid stool incontinence and have poorer lifestyle impact scores after OASI at six weeks postpartum. HIV-positive women also appear to experience more de novo postpartum stress urinary incontinence than HIV-negative controls. Our study suggests that HIV-positive women may have poorer postpartum muscle function than HIV-negative women and this needs to be addressed by further studies.

Concluding message

This study is the first in its field, and provides original data on a population of urban, younger, predominantly non-White HIV-positive and negative women before and after an OASI. To date there is no literature comparing outcomes after OASI in HIV-positive vs HIV-negative women. Despite the small numbers, this study has already yielded significant and concerning findings. We recommend further and ongoing investigation into the impact of HIV on OASI, as well as urinary and sexual functioning in relation to HIV infection.

References

1. 1. Morandi E, Merlini D, Salvaggio A, Foschi D, Trabucchi E. Prospective study of healing time after haemorrhoidectomy: Influence of HIV infection, Acquired Immunodeficiency Syndrome, and Anal Wound Infection. Dis Colon Rectum 1999;42:1140-1144

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Is this study registered in a public clinical trials registry?	**No**
Is this a Randomised Controlled Trial (RCT)?	**No**
What were the subjects in the study?	**HUMAN**
Was this study approved by an ethics committee?	**Yes**
Specify Name of Ethics Committee	**University of Cape Town, Faculty of Health Sciences, Research (Human) Ethics Committee**
Was the Declaration of Helsinki followed?	**Yes**
Was informed consent obtained from the patients?	**Yes**