Breast cancer is the most common malignancy diagnosed in women in South Africa.

Breast cancer mortality in South Africa is more than double that of the United States.

Triple-negative breast cancer (TNBC) is the most aggressive and most lethal subtype of breast cancer.

**BACKGROUND**


**Student:** Jacob Dubner (Vagelos College of Physicians and Surgeons, Class of 2025)

**Columbia University Mentors:** Yoanna Pumpalova, MD and Alfred Neugut, MD, PhD

**SOUTH AFRICAN BREAST CANCER HIV OUTCOMES (SABCHO) STUDY**

- Prospective cohort of +5,000 South African breast cancer patients enrolled since 2015.

- Collaboration between Columbia University, University of Witswatersrand, and University of KwaZulu-Natal.

**RESEARCH QUESTION**

Does HIV positive status and/or degree of HIV control affect the risk of developing triple-negative breast cancer relative to other breast cancer subtypes among South African women?

**METHODS**

- Exclude patients with unknown HIV and breast cancer subtype status.

- Descriptive statistics using contingency tables.

- Multivariate logistic regression models to test associations between HIV and TNBC vs. non-TNBC while controlling for relevant demographic, reproductive, and clinical factors.

- Repeat multivariate logistic regression with measures of HIV control (HIV viral load, CD4+ T cell count, ART status, ART duration).

- HIV positive status was found to be associated with increased risk of TNBC relative to non-TNBC.

- HIV control was not found to be associated with breast cancer subtype.

**DISCUSSION**

- Women living with HIV (WLWH) are at increased risk of developing TNBC, regardless of degree of HIV control.

- Breast cancer screening guidelines should be re-evaluated to consider earlier, more frequent, and more thorough screening of WLWH to help detect TNBC in its earliest stages.

**REFERENCES**


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