

**A FIVE-YEAR RETROSPECTIVE REVIEW OF THE FREQUENCY OF
MALIGNANCY IN MEDIAL MAXILLECTOMY SPECIMENS FOR
INVERTED PAPILLOMA AT CHRIS HANI BARAGWANATH
ACADEMIC HOSPITAL.**

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ABSTRACT

Background: Sinonasal inverted papilloma (SNIP) is one of the most common benign tumours of the nose and paranasal sinuses. It has unpredictable rates of recurrence and malignant transformation. Studies assessing the prevalence of malignant transformation have been reported from India, China and Europe but not from Africa. The purpose of the study was to establish if the incidence of malignancy in inverted papilloma in a defined South African population is in keeping with that reported worldwide.

Method: This was a quantitative retrospective chart review of patients with malignant transformation of inverted papilloma attending the Otorhinolaryngology Department at Chris Hani Baragwanath Academic Hospital. The study was a retrospective data collection over 5 years from 1st January 2015 to 31st December 2019. Data sought were demographic data (age, 'race' and gender); the resection method used (pure endonasal endoscopic approach, external approach, or combined); risk factors (history of HIV, cigarette smoking, occupation); and factors related to malignant transformation (if present: time to occurrence, clinical stage, treatment method, survival).

Results: Adequate data were obtained from 26 records. The average age of the sample was 47.2 years (SD: 15.5), but the range was very broad. The minimum age was 23 years and the maximum age was 89 years. Thirty-eight percent (38%, n/N = 10/26) of the sample was female, and all except one record had been obtained from a Black Africans (the one exception was classified as being of Indian decent). All resections were performed endoscopically, and viral cytopathy showed one individual with cytomegalovirus and three with human papillomavirus cytopathic effects. Thirty-eight percent (38%, n/N = 10/26) of patient records indicated that they had a history of smoking, and 15% (n/N = 4/26) were HIV-positive.

In terms of recurrences, there was a recurrence in 4 cases (15%, $n/N = 4/26$). The mean time to recurrence was 21 months (SD: 9.9), with a minimum time of 9 months and a maximum time of 36 months.

Conclusions: This study showed frequency of malignancy similar to those reported worldwide (11.5%) but slightly higher rates of tumour recurrence (15.4%) with a mean time to recurrence of 21 months. The higher tumour recurrence rate may be due to the incomplete surgery and delayed presentation or high disease stage at presentation. There was no distinct risk factor noted for SNIP recurrence or malignant transformation.