Upper Aero-Digestive Tract Malignancies in Botswana: Clinicopathological Features and Human Papillomavirus Genotypes in an HIV-Endemic Setting

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Upper aero-digestive tract (UADT) malignancies, which include cancers from the oral cavity down to the oesophagus, collectively rank third in incidence worldwide and in Botswana. Sub-Saharan African has a high burden of cancers caused by HPV, including UADT cancers and these are exacerbated by the HIV pandemic. HPV has been extensively studied in anogenital cancers in Botswana, however, gaps remain in our knowledge of the role of HPV in UADT malignancies, although evidence elsewhere suggest that HPV plays a role in a subset of these cancers. The HIV-endemic setting in Botswana is ideal to study HPV prevalence and genotypes in UADT malignancies, considering that HIV has been shown to influence HPV prevalence and genotypes distribution in anogenital cancers. The proposed study aims to determine HPV prevalence and genotype distribution in UADT malignancies. Furthermore, the study aims to analyse demographic and clinicopathological features in patients with UADT malignancies, with or without HIV coinfection in Botswana. This study will enrol 162 tissue specimens with associated diagnosis of UADT malignancies. HPV prevalence and genotypes will be determined in UADT malignancies using multiplex PCR and RFLP-PCR techniques. Retrospective analysis of patient data will be used to describe clinicopathological features. The findings of this study will for the first time provide data on the role of HPV on UADT malignancies in Botswana and are likely to influence UADT cancer prevention and cancer management.