

Prevalence of Human Papilloma Virus in Breast Cancer

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Introduction: Human Papilloma Virus (HPV) varies greatly between geographic variations. Different countries have different HPV genotypes. The prevalence data of HPV in Breast Cancer is much higher in areas with high incidence of HPV. There is no data regarding HPV association with Breast Cancer in South Africa.

Aim: To study the Prevalence of HPV in Breast Cancer at Steve Biko Academic Hospital.

Method: This was a retrospective study intending to determine the prevalence of HPV types in Breast Cancer tissue samples at Steve Biko Academic Hospital. Data was obtained from the archived Breast Cancer tissue samples at the University of Pretoria, Department of Anatomical Pathology National Health Laboratory Services. Probability random sampling was used in this study. Inclusion criteria for the study were Breast Cancer tissue blocks with sufficient material for further testing. Tissue blocks with insufficient material for further testing were excluded. A total number of 102 Formalin Fixed Paraffin Embedded known Breast Cancer tissue samples were enrolled for the study. Data was analysed using SPSS software for descriptive results and Microsoft excel was used for statistical analysis. Ethics approval for conducting the study was obtained from the University of South Africa and University of Pretoria ethics committee, Head of the Anatomical Pathology Department, Head of General Surgery and CEO of Steve Biko Academic Hospital. Results: Of 102 Formalin Fixed Paraffin Embedded Breast tissue samples studied, 91 (89.2%) sample tested positive for HPV virus. HPV has shown to be associated with Breast Cancer. Conclusion: HPV is present in Breast Cancer samples at Steve Biko Academic Hospital. The presence of HPV DNA in the Breast Cancer samples support the etiological role of oncogenic HPV in the pathogenesis of Breast Cancer in the study population.

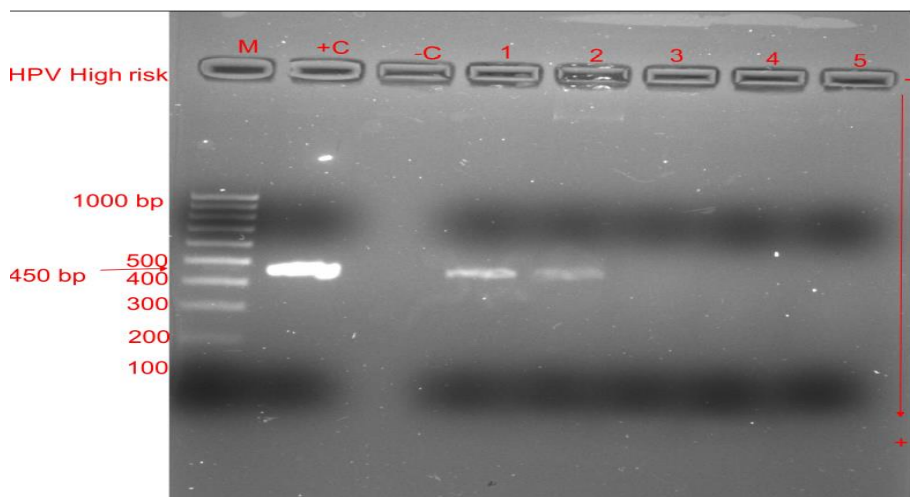


Figure legend: Agarose gel electrophoresis picture of high risk HPV in Breast Cancer samples. Lane M= Molecular marker, Lane +C= Positive control, Lane -C= Negative control, Lane 1 – 5=Breast Cancer patients material.