Defining the association and potential role of human papillomavirus and breast cancer

Human Papillomavirus (HPV) is known to play a significant role in cancer initiation and progression and vaccination against HPV will have a clear impact on the incidence of cervical cancer. The role of HPV in breast cancer is unclear. Intraductal papillomas of the breast are associated with increased breast cancer risk but the potential transition or relationship between papillomata and in-situ or invasive cancer has not been fully investigated. These observations, combined with (via sexual contact) a potential route of transmission of HPV into the ductal system of the breast, makes the study of breast tissues for the presence and function of HPV a valid hypothesis to consider. It is also becoming clear that other subtypes of High Risk HPV other than HPV types 16 and 18 may play a role not only in cervical cancer, but in other cancer sites (e.g. head and neck). To date 120 patients undergoing breast surgery have been consented to undertake research core biopsies on excision tissue at surgery. Biopsies are immediately preserved in Allprotect® reagent from QIAGEN® to stabilize DNA, RNA and protein and PCR carried out for 12 High-risk HPV types (16, 18, 31, 33, 35, 45, 52, 56, 58 and 66). The rationale for the potential role of HPV in breast cancer will be discussed, and via case reports and data, the first documented identification of HPV subtypes in Allprotect-stabilized freshly breast tumor and non-tumor tissue will be presented and the potential role of HPV in breast cancer will be discussed.

Biography

Giles S L Davies is an established Oncoplastic Breast Surgeon based in London. He completed his surgical training in London and Australia and his Research MD Thesis at the Royal Marsden Hospital where he is also an Honorary Consultant. He established a link in 2014 with Professor Ashrafi at Kingston University and at present has an active research team both in the UK and at the Hamad Hospital in Qatar evaluating the role of HPV in breast cancer.

breastsurgery@mac.com