Nasal Papilloma due to HPV 11 infection

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Case report

Introduction

Human papillomaviruses cause almost all cervical carcinomas, but HPV infections have recently been established as a major etiologic factor for a subset of cancers arising from the oropharinx, including the base of tongue, tonsil, and other parts of the pharinx. Certain types of HPV are considered carcinogenic in humans: HPV 16 and HPV 18 are the most carcinogenic types; HPV 31, 33, 35, 39, 45, 51, 52, 56, 59, 66 and 68 also are included in the group of carcinogenic HPV types (1,2,3,4,5).

HPV 6 and 11 are associated with genital warts and papillomas are not believed to be carcinogenic (6).

The aim of this paper is to show a case of a benign papilloma of the nasal fossa due to a HPV 11 infection.

Case

In September 2013 a caucasian male aged 40 was referred to our observation at Maxillo Facial surgery department of S. Andrea Hospital, Second Faculty of Medicine and Surgery of University of Rome “la Sapienza”. Patient was complaining about a painful, bleeding, solid formation, red in colour, located in the nasal fossa and well visible with an external rhinoscopy. The mass has an oval shape and was approximatively 1 x 0,5 cm.

Patient underwent to surgical treatment on late september, the formation has been removed. Hystopathological exam revealed how the solid mass were a papilloma due to an HPV 11 infection.

Materials and methods

DNA was extracted from paraffin embedded tissue using DNA Mini Kit (Qiagen, Hilden, Germany), following manufactures protocol INNOLiPA (INNogenetics NV, Gent, Belgium) kit based on the reverse hybridization principle was used for HPV DNA genotyping. Amplification and genotyping of HPV DNA were performed according to the manufacturer’s reccomandations. This assay amplifies a spectrum of HPV types but allows detection of 16 different genotypes. The undetermined types were noted HPVx. The version of the LiPA kit contained probes for high-risk HPV genotypes 16, 18, 31, 33, 35, 39,45, 51, 52, 58, 59, 68, undetermined-risk HPV genotypes 26, 53, 66, 70, 71,73, 74, 82 and low-risk HPV genotypes 6, 11, 40,43, 44, 54. HPV DNA amplification was performed using the SPF10 primer set (a 65-bp fragment of L1 ORF of the HPV genome) labeled with biotin at the 5’-end. The sample resulted HPV11 positive.

Discussion and conclusions

A tight relationship exists between Human Papilloma Virus (HPV) infection and pathogenesis of nasal papilloma and its malignant transformation (1,2). According with many Authors HPV – DNA 6,11,16,18 infection are related with Nasal Inverted Papilloma (NIP) (3,4,5). HPV DNA presence was found even in the intact mucosa, indicating a latent infection of aerodigestive tract (6,7). However, do confirm the association of HPV infections with benign as well as malignant proliferative neoplasias of the upper aerodigestive tract and the causative involvement of HPV in viral-cellular interactions leading to proliferation and in case of infection with high risk HPV types, even to malignant transformation (8).

References

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