HPV-associated Buschke-Löwenstein tumours in a patient with disseminated anogenital form of Condyloma acuminatum

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Abstract: Buschke-Löwenstein tumours are relatively rare as a clinical and histological pathology, but due to their existing malignant potential and frequent association with some types of the HPV viruses, should be promptly diagnosed and studied for early morphological verification of diagnosis and determination of exact subsequent therapy.

In this paper we present a patient with an average age of long-standing complaint from constantly growing and persistent over time tumours formations localized in the anogenital area, which were subsequently verified clinically and histopathologically as a well-differentiated carcinomas of Buschke-Löwenstein-type, in combination with disseminated, anogenitaly located form of condyloma acuminatum. Histologically large tumour nests from well-differentiated squamous cell carcinoma were observed, abundant mononuclear infiltrates and pronounced koilocytosis also. Immunohistochemical analysis in lesionous tumour tissue was carried out in relation to the proliferative index of the cells (with Ki67 antibody) and autoantibody (AK) against PAN-HPV, which gave a strong positive reaction and confirmed the availability of human papilloma viruses in the probe.

A surgical removal of the various tumour formations was performed by electro-dissecation in combination with shave-curette under general anesthesia. Due to the excessive bleeding there was not possibility for complete removal of the perianal located tumour formations and the therapeutic strategy was revisited. A systemic therapy with interferon was planned with the purpose to reduce the tumour mass before the following reoperation.

Treatment and outcome

During the review were found perianal localized cauliflower like, growing exophytic, cherry like tumor formations with a variable degree of differentiation (G1). Histological examination of lymph nodes did not show the presence of metastases.

Histology

After biopsy was establish verucous papillary tumor consisting of solid nests and drags contained atypical squamous epithelium among heavy lymphocytes/plasmocytes infiltrate (Fig. 2a-c).

Introduction

Buschke-Löwenstein tumours were first described by Buschke in 1925 (1). In essence, they represent well-differentiated squamous cell carcinomas - verrucous type localized in the anogenital area. Despite that they listed nearly ninety years, Buschke-Löwenstein tumours are relatively rare pathology and rank in frequency after intraepithelial squamous carcinoma, intraepithelial adenocarcinoma, basal cell cancer and malignant melanoma. It is important to note that one of the suspected etiopathogenetic agents for their development is the human papillomavirus (HPV), particularly types 6 and 11 (2,3).

In most patients, the tumor is represented by exophytic bulk like a mushroom or cauliflower, sometimes reaching large sizes. Despite his rapid growth this tumor rarely makes metastases. For proof histological origin and HPV association it's necessary careful morphological study in addition with routine and specific immunohistochemical methods (5).

We present a case of patient with an average age of long-standing complaint from burgeoning of tumor formation in anogenital area, which subsequently verified as well-differentiated squamous cell carcinomas of the type - Buschke-Löwenstein, in association with disseminated condyloma acuminata.

Anamnesis

Patient of 39 years with duration of symptoms over ten years as a complaint of gradually increasing tumor formation in the genital area and anus, often accompanied by spontaneous bleeding and itching. He had a problematic and painful defecation, associated with painful symptoms in the spurt. No reports of bad habits, promiscuity or systemic medication.

Clinical findings

During the review were found perianal localized cauliflower like, growing exophytic, cherry like tumor formations with a variable degree of intensity of brown colour, also involving the foreskin, frenum and scrotum (Fig. 1a-c). Paraclinical findings were without abnormalities. Of instrumental methods ultrasound examination is recorded suspected metastatic lesion in the right inguinal area, which after examination was verified (histopathological) with dermatopathic genesis.

Histology

After biopsy was establish verucous papillary tumor consisting of solid nests and drags contained atypical squamous epithelium among heavy lymphocytes/plasmocytes infiltrate (Fig. 2a-c).

Histopathology images are showing tumour - nests of well-differentiated squamous cell carcinoma, and expressed abundant mononuclear infiltrate, koilocytosis. Focal expression of HPV in tumour tissue: 2a-c

Conclusions:

We present a case with a rare form of cancer such as Buschke-Löwenstein, diagnosed relatively late and surgically treated without a definitive cure for most, anogenital localized lesion. Based on the characteristics and progression, some authors have classified this disease as a condition between condyloma acuminatum and squamous cell carcinoma (2,4). It is not surprising, since in practice in the early stages of the disease warts and tumors of Buschke-Löwenstein were first described by Buschke in 1925 (1). In essence, they represent well-differentiated squamous cell carcinomas - verrucous type localized in the anogenital area. Despite that they listed nearly ninety years, Buschke-Löwenstein tumours are relatively rare pathology and rank in frequency after intraepithelial squamous carcinoma, intraepithelial adenocarcinoma, basal cell cancer and malignant melanoma. It is important to note that one of the suspected etiopathogenetic agents for their development is the human papillomavirus (HPV), particularly types 6 and 11 (2,3).

Histologically papilomatous significant than is acanthosis and hyperplastic epithelium in most cases is well differentiated, composed of cells with pale cytoplasm and hyperchrome nuclei while maintaining basal membrane (5). Using immunohistochemical methods (HPV-PAN-AK) we proved the presence of HPV in histological preparations, which were localized mainly in the areas of koilocytosis. It wasn’t conducted subtyping to more accurately classify the types of HPV viruses. Was determined immunohistochemically the Ki-67 index, which showed a high degree of tumor differentiation (G1). Histological examination of lymph nodes did not show the presence of metastases.

After placing the patient under general anesthesia was attempted to remove the lesion with electro-dissecation and curetage. Because of the bleeding tumor formation was not completely eradicated and the operation was discontinued. The remaining lesions in anogenital area were removed by sharp curette and fine scissors, and over time weren’t observed recurrences.

REFERENCES: