Extensive Presentation of Penile Carcinoma Cuniculatum a Variant of Squamous Cell Carcinoma With Low Malignant Potential

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Abstract

Carcinoma cuniculatum is an uncommon variation of squamous cell carcinoma (SCC) that has been documented in a few cases at various locations of the body such as penis, foot, jaw, oropharynx and esophagus. In this case, a 79-year-old male presents with a penile mass, which he underwent a total penectomy. Histology of the mass was defined as carcinoma cuniculatum with negative margins and no lymphovascular invasion. This variant of SCC rarely metastasizes. A joint decision was made to observe lymph nodes. It is important to differentiate the different SCC because patient care can be guided based on the pathology.

Introduction

Penile carcinoma is a very rare cancer in industrialized countries. The prevalence of circumcision in childhood is a major factor for decreasing the risk of invasive penile cancer. Less than 1% of all tumors in males are penile carcinoma. In this group, 95% of penile carcinoma is classified under squamous cell carcinoma (SCC). Risk factors for SCC are smoking, human papillomavirus (HPV) infection, phimosis, lichen sclerosis, poor hygiene. There are many variants of SCC which include, the usual type which is the most common variant, verrucous, warty, papillary not otherwise specified (NOS), basaloid, sarcomatoid, cuniculatum, pseudohyperplastic, adenosquamous and pseudoglandular.

Carcinoma cuniculatum is a rare variant of SCC that was first described in 1954 by Ayrd. It is characterized by an endophytic, burrowing growth pattern. It is clinically indistinguishable from other verruciform SCCs but microscopically it has a unique pattern of growth. It is important to differentiate carcinoma cuniculatum from other variants of SCC as the treatment and prognosis may vary.

Case report

A 79-year-old male presented to his primary care physician (PCP) with a penile mass. The patient's wife noticed that he was putting toilet paper in his underwear to prevent drainage and blood from messing up his underwear. He was then referred to urology. On examination, an indurated phallic mass with ulcerations and drainage from the sides, extending the length of the penis from the meatus to the base, was observed. The patient was treated for cellulitis which did not resolve and subsequently referred to urology. He was evaluated and worked up for penile cancer. No palpable lymph nodes on physical exam or lymphadenopathy on CT scan. The patient was insisting to have a penectomy performed as early as possible. He underwent a total penectomy with perineal urethrostomy without lymph node dissection.

Histopathology of the penile specimen showed an extensive carcinoma cuniculatum involvement of the entire length of the penis, managed without immediate lymph node dissection.
carcinoma cuniculatum type. The tumor involved the entire glands extending into the squamous mucosa prepuce to corpora spongiosum. One margin was close to the tumor but free of carcinoma. It was characterized as verrucous (condylomatous) growth and serpiginous sinus tracts with pushing borders, which is consistent with carcinoma cuniculatum. No lymphovascular margins were involved with pathological staging as pT2 (Fig. 2).

Discussion

The case is unique because it is the only description of carcinoma cuniculatum extending throughout the penis. The pathology is considered low grade with low malignant potential to spread. There was no lymphovascular invasion identified. Despite the pathological diagnosis of the cancer of pT2, a lymph node dissection was not preformed. Previous reports were not as locally extensive however no metastases to lymph nodes or extra-nodal occurred from the penis. This was a joint decision between the patient and physician to surveil lymph nodes through clinical exam and imaging with possible delayed lymphadenectomy. Because of the unique variant of this penile cancer it was decided that observation was a reasonable option for this patient.

Conflict of interest

There was no conflict of interest in the management of the patient's penile cancer.
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