Cavernous Hemangioma of the Penis mimicking Malignancy

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Abstract

Hemangioma, the most common benign vascular tumor, results from proliferation of immature capillary vessels. This disorder rarely affects the urinary tract constituting 2% of all hemangiomas. The most common sites in this region are the kidneys and the bladder. Infrequently, they have also been reported in the urethra, genital skin, and prostate. We report an unusual case of cavernous hemangioma of the penis in a 32 year old male which was clinically suspected to be malignancy.

Keywords: Cavernous, carcinoma, hemangioma, penis, vascular

INTRODUCTION

Hemangiomas of the glans penis are extremely rare lesions. Very few cases have been described in the world literature[1]. The diagnosis of these lesions is usually easily made and they rarely present as a diagnostic dilemma. We report a case of 32 year old male presenting with a penile nodule which was suspected to be carcinoma penis but was diagnosed as cavernous hemangioma on histopathology.

CASE REPORT

A 32 year old male presented with a painful swelling over the anterior surface of penis with a short duration of 20 days. The patient also gave history of trauma. He had no urinary complaints. His medical and family history were unremarkable.

Physical examination showed a firm tender nodule with foci of ulceration present over the dorsal aspect of the glans penis. The nodule was greyish white in color measuring 1 cm in diameter. The ultrasonographic examination of the urinary system and the urine/blood analysis did not reveal any abnormality.

Based on this clinical picture, a clinical diagnosis of carcinoma penis was suspected and the nodule was excised and sent for histopathological examination. On cut section, the nodular area revealed areas of necrosis and hemorrhage. Microscopy showed stratified squamous epithelium with foci of ulceration. Areas of hemorrhage with numerous dilated and congested vascular channels were seen in stroma rendering the diagnosis of cavernous hemangioma.

DISCUSSION

Hemangiomas are benign vascular malformations of enlarged dysplastic vascular channels with abnormal growth of endothelial cells. They are classified into arteriovenous, cavernous, capillary, venous and mixed subtypes out of which cavernous and mixed are most commonly seen. Children are usually affected and the musculoskeletal system, liver and spleen are the affected sites[2]. This disorder is rarely described in the genitals[3]. The most common sites for urogenital hemangiomas are the kidneys and the bladder. However, hemangiomas have been reported in the urethra, genital skin, and prostate[4].

Only a few cases of glans penis hemangiomas have been described in the world literature [1]. Delmer and Smith, in 1970, described 10 benign angiomatosus lesions of the glans penis[5]. Froehner et al reported a case of giant penile hemangioma with intrapelvic extension in 1999[6]. Since then many more angiomatosus lesions of the glans penis have been reported[7].

Hemangiomas maybe secondary to neoplasia or trauma as was seen in our patient[2]. Grossly these lesions present as irregular nodules which are bluish red in color with a strawberry like appearance. The swelling is usually compressible, non tender and non pulsatile[4]. It is usually mandatory to image the lesions and their extensions before surgical resection, as physical examination is frequently inadequate to detect the extensions of deep lesions. US[Ultrasound], CT [Computed tomography] and MRI [Magnetic Resonance Imaging] are recommended for the work up[2]. Clinical examination as well as color doppler evaluation reveals a low flow state clinching the diagnosis of cavernous hemangioma. But in our case, the swelling was firm to hard in consistency and tender with areas of ulceration and necrosis raising a suspicion of malignancy. Also, a short duration of 20 days advocated against a diagnosis of hemangioma.

Multiple sections of the growth including the ulcerated and necrotic areas as well as the adjacent normal looking areas were taken. Histopathological examination revealed numerous dilated and congested vascular channels rendering the diagnosis of cavernous hemangioma [Fig. 1 & 2].

Various modalities have been used for the treatment of these hemangiomas, including surgical excision[8], laser therapy and sclerotherapy[7]. Intralesional sclerotherapy has emerged as the treatment of choice specially in developing countries as it is cost effective and can be performed easily as an out patient procedure[9]. The sclerosant disrupts the endothelium, causing edema in a few minutes. This causes thrombus formation in the vessel lumen, with subsequent fibrosis causing endosclerosis.
fibrosis together with absorption of the coagulum by histolytic digestion causes disappearance of the treated lesion over time[10].

Because of their high vascularity, surgical excision of these tumors carries the risk of bleeding not only during the excision, but also in the postoperative period with nocturnal erection. In addition to poor healing, scar formation is a frequent complication of surgery to the glans penis[3]. We report this case for its rarity and unusual presentation in a young male mimicking malignancy.

REFERENCES