CASE REPORT

Angiosarcoma of penis

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SUMMARY

A 29-year-old male patient presented with proliferative lesion in the glans penis without any inguinal lymphadenopathy. The biopsy showed a highly vascular malignant lesion. Subsequent metastasis work-up was negative. Partial amputation of the penis with close follow-up was performed. Final histopathology was consistent with angiosarcoma of the penis.

BACKGROUND

Sarcoma of the penis is rare and angiosarcoma is rarer. Only a few cases are reported in the literature. It is an aggressive tumour with varied presentation. Clinically, it cannot be differentiated from squamous cell carcinoma of the penis. Although no definite modality of treatment is formulated yet, radical surgery may be the only treatment.

CASE PRESENTATION

A 29-year-old unmarried man presented with a proliferative growth on the glans penis with occasional bleeding from the growth for the past 6 months. Initially he ignored the symptoms, but as the growth increased gradually with bleeding from the growth, he was presented to us. He had no history of exposure to sexual contact. On examination, a growth was found on the glans penis under the tight prepuce skin. On the dorsal slit of the prepuce skin a large fungating growth (2 cm × 1 cm) was seen. It was bleeding on touch (figure 1). External urethral meatus as well as the rest of the penis was normal. Inguinal lymph nodes were not palpable on both sides.

Figure 1 Clinical photograph showing fungating growth on the under surface and left lateral aspect of the glans penis.

INVESTIGATIONS

The patient was normoglycaemic with normal haematological, renal biochemical parameters and seronegative for HIV. The reports of chest X-ray and liver function test were normal. Abdominal ultrasonography and contrast-enhanced CT of the abdomen showed no abnormality. A wedge biopsy from the margin of the growth showed a hypervascular malignancy. Final histopathology showed a tumour composed of an anatomising network of vascular channels, lined by plump endothelial cells; some vascular channels were filled with proliferating plump endothelial cells. There were areas of haemorrhage, necrosis and lymphovascular and perinural invasion (figure 2). On immunohistochemistry, tumour cells expressed CD34 and CD31. It was also immunonegative for cytokeratin and EMA.

TREATMENT

Total amputation of penis was planned but as the patient was unmarried he was not willing for total amputation. So, a partial amputation was performed. The surgical margin was free from tumour.

OUTCOME AND FOLLOW-UP

At 6 months of follow-up the patient developed left-sided inguinal lymphadenopathy. Inguinal lymph node dissection was planned but the patient refused to undergo any further operation. Follow-up of the case stopped here as the patient did not report for follow-up.

Figure 2 Histopathological picture showing anatomising network of vascular channels lined by plump endothelial cells and some are filled with proliferating plump endothelial cells (H&E ×400).

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DISCUSSION

Sarcoma of the penis is rare and angiosarcoma is rarer.¹⁻⁴ Approximately 30 cases of angiosarcoma of the penis have been reported till now in the literature.¹ In most of the reported cases, the origin of angiosarcoma was in the corpus cavernous. In three cases the origin was in the glans and one case was in the urethra.¹ In our case the site of origin was in the glans. The usual presentation deals with a fungating growth or swelling in the penis. Less common presentations are mass on rectal examination, haematuria, features of distant metastasis and scrotal mass or a mass extending into the bladder.¹ Sometimes patients are presented with a subcutaneous nodule in the penis masquerading as a Peyronie's plaque.³ Cases are reported in patients with Von Recklinghausen's disease,⁴ after radiation for squamous cell carcinoma of penis⁵ suffering from AIDS.⁶ The condition clinically may be misdiagnosed as squamous cell carcinoma, genital herpes,⁷ Perony's disease³ or syphilis.⁸ Clinically, penile angiosarcoma should be suspected when there is an unexplained rash, chronic ulceration in the penis or induration in the corpus cavernosum.⁸

The diagnosis is entirely based on histopathology. The histopathological criteria for diagnosis are formation of vascular vessels with a delicate framework of reticulum fibres and abnormal proliferation of endothelial cells within the vessels.¹ Although penile epithelioid hemangioendothelioma gives more or less similar histopathological picture, it can be differentiated by the presence of factor V111 antigen in it.²

Management is aggressive by local radical surgery. Survival in most of the reported cases ranged from 5 to 54 months.² Local recurrence is the common rule as in all sarcomas, so total amputation followed by local radiation should be performed in superficial cases also.² For metastatic diseases local surgery with chemotherapy and radiotherapy should be considered, though other different modes of therapy do not play any significant role for survival of the patients.² Although total amputation gives the best oncological outcome, our patient did not give consent as he was unmarried.

Learning points

- ▶ Very rare tumour.
- ▶ Aggressive in nature.
- ▶ Early biopsy is mandatory in suspected penile lesion.
- ▶ The treatment should be aggressive by radical surgery.
- ▶ In spite of adequate treatment prognosis is poor due to local recurrence or distant metastasis.

Contributors DG prepared the manuscript. SH performed the literature search. BG assisted in the operation and edited the manuscript. DKP operated on the patient and approved the manuscript.

Competing interests None.

Patient consent Obtained.

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