Paratesticular Rhabdomyosarcoma

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Citation

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Abstract

The paratesticular region includes structures like tunics, contents of the spermatic cord, epididymis, etc. Testicular tumors are very common in young age but paratesticular masses are a rare. Different types of tumors occur in the paratesticular region including rhabdomyosarcoma, leiomyoma, adenomatoid tumor, leiomyosarcoma, fibrosarcoma and liposarcoma. Clinically, paratesticular swellings are indistinguishable from testicular swellings. Paratesticular tumors present as scrotal mass, which may or may not be painful. Occasionally, there is an associated hydrocele. So it is very difficult to diagnose preoperatively if a mass is testicular or paratesticular in origin. This is possible only after histopathological examination.

INTRODUCTION

Paratesticular tumors originate from paratesticular tissues of the testis, are also called fibrous pseudotumors of the testis or benign fibrous proliferation of the tunica vaginalis of the testis and arise from paratesticular structures like the spermatic cord, epididymis or tunica vaginalis. They are mostly mesenchymal and rare. Rhabdomyosarcoma in its juvenile form accounts for approximately 40% of all paratesticular tumors followed by leiomyosarcoma, fibrosarcoma, liposarcoma and undifferentiated mesenchymal tumors[1].

CASE REPORT

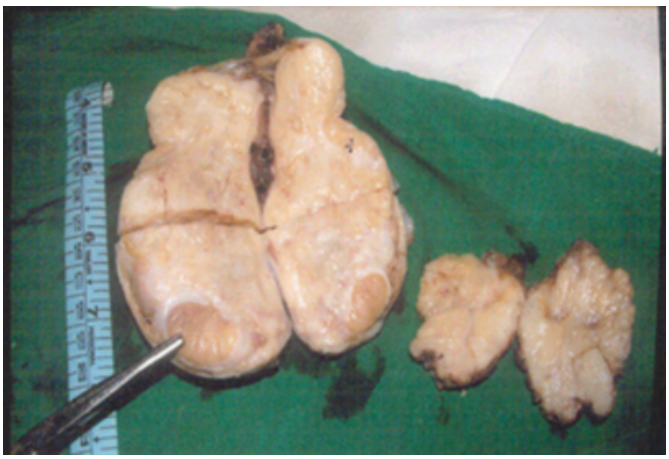
A 20-year-old male presented with a one-and-a-half-year history of a gradually enlarging painless left scrotal mass and a 2-month history of a left groin swelling and dysuria. There was no history of trauma or fever. Physical examination revealed a 10x4cm, irregular, firm, non-tender, non-transilluminant, left scrotal mass with a 3x4cm, oval, firm left groin mass. The scrotal skin was free. Ultrasonography showed a left testicular mass with left external iliac lymphadenopathy. The right testis appeared unremarkable. Metastatic work-up demonstrated no other lesion in the body.

Fine needle aspiration cytology of the left groin mass suggested a lymphoma.

A retrograde radical orchiectomy was performed. On exploration, a 12x8x6cm, grayish-brown left paratesticular mass pushing the testis down was found. The groin mass was grayish-white and firm, measuring 6x4x3cm (fig. 1) and infiltrating the internal oblique and transversus abdominis muscle, inguinal ligament and external iliac vessel walls .

Figure 1

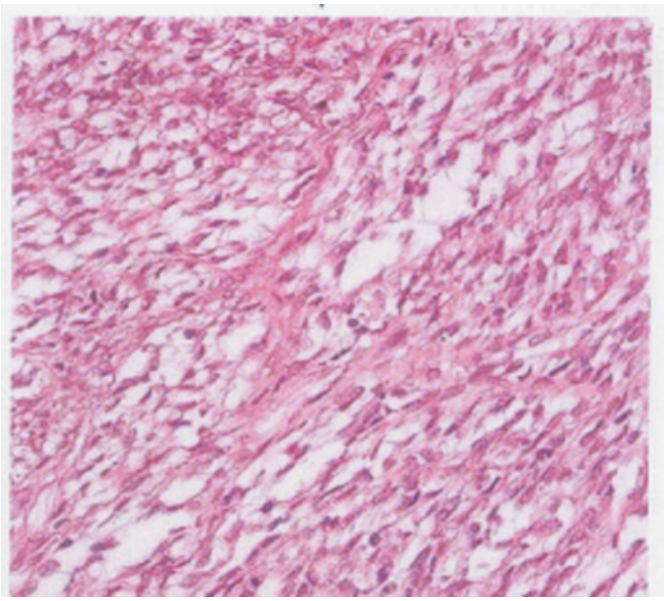
Figure 1. Left side: Grayish-brown paratesticular mass pushing the testis down (indicated by the forceps). Right side: Excised groin mass infiltrating the internal oblique and transversus abdominis muscle, inguinal ligament and external iliac vessel walls.



Histopathology of the praratesticular mass suggested a poorly differentiated rhabdomyosarcoma (fig. 2).

Figure 2

Figure 2: (H&E stain, 100x) shows a very cellular tumor, composed of moderate-sized cells showing several mitotic figures. At places, fibrocollagenous tissue is seen in between. The cells are in sheets. There are areas of coagulative necrosis. These finding are suggestive of poorly differentiated rhabdomyosarcoma.



DISCUSSION

Paratesticular rhabdomyosarcoma is one of the most common non-germinal neoplasms affecting the scrotal contents in children and adolescents. The patient is afebrile and usually presents with a unilateral, painless intrascrotal swelling. A hydrocele may be present, often resulting in a misdiagnosis of epididymitis, which is more commonly associated with a hydrocele.

Paratesticular rhabdomyosarcomas usually spread to the paraaortic and paracaval lymph nodes but rarely to the inguinal lymph nodes, unless the scrotal skin is involved. In our patient the scrotal skin was free but the external iliac lymph nodes were involved. The most common distant sites of hematogenous metastases are cortical bone, bone marrow and lungs.[2]

Unlike rhabdomyosarcomas, parartesicular rhabdomyosarcomas are extremely rare. The majority of these tumors occurs in the first two decades of life and belongs to the embryonal histopathologic subtype.[3] Treatment is by radical orchiectomy followed by chemotherapy.

PROGNOSIS

Paratesticular rhabdomyosarcoma is associated with a significantly better outcome than lesions elsewhere in the genitourinary tract. Tumor stage and site are now considered prognostic indicators. Grosfeld and colleagues (1983) stated that chemotherapy improves survival in stage I (91%) and stage II (86%) tumors and may shrink bulky stage III tumors, allowing less radical procedures in certain selective sites, particularly in the urinary tract.[4] Survival is poor in stage III, with 35% survival, and dismal in stage IV, with 5.2% survival, despite combined therapy.[1]

References

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