Case Report

Spermatocytic seminoma masquerading as chronic orchitis

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Abstract

Spermatocytic seminoma is an uncommon germ cell neoplasm found in elderly male patients, which carries excellent prognosis. It usually presents as a slow growing painless testicular swelling. Clinical history, physical examination, and ultrasound provide important clues as to the nature of testicular swellings in general. Rarely the diagnosis of testicular tumours in patients may be missed because testicular swelling is attributed to orchitis, as indeed happened in our case. Histopathological examination is confirmatory in such cases.

Keywords: Spermatocytic seminoma, Orchitis.

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INTRODUCTION

Spermatocytic seminoma is an uncommon germ cell neoplasm found in elderly male patients, which carries excellent prognosis. It usually presents as a slow growing painless testicular enlargement, however any testicular mass should be considered neoplastic unless proved otherwise, as witnessed in this case.

CASE SUMMARY

A 65 year old male, presented with painful swelling of right testis and dysuria of six months duration. O/E: Right testis was mildly enlarged, tender & hard. The left testis, both epididymes and the cord structures were clinically normal. Investigations: Total white blood cell (WBC) count was 3400 per cubic mm with a differential count of 72 polymorphs and 25 lymphocytes, ESR was 45 mm in one hour, Urine microscopy revealed 10-12 red blood cells (RBC)/high power field. A clinical diagnosis of right sided chronic orchitis was made. The patient underwent orchidectomy. The testis measured 4X3X2 cms. Surrounded by thickened tunica vaginalis. Cut- section of testis showed fine granularity & small foci of necrosis. Vas deferens and epididymis appeared normal. Microscopic examination of testis showed tumor cells composed of nests and predominant intratubular growth pattern (Figures 1&2), with abundant cytoplasm, variation in nuclear size and coarse chromatin clumping (Figure 3). Large and small cells with large mitotic activity were seen. The tumor showed multiple small foci of necrosis and was confined within the testicular capsule. Sac showed features of hematocele. A final diagnosis of Spermatocytic Seminoma of testis with predominant Intratubular growth pattern was made.

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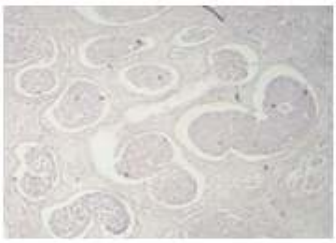

Figure 1: Intratubular germ cell neoplasia (H&E 10x)

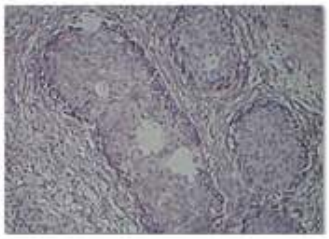

Figure 2: Intratubular growth pattern (H&E- 20x)

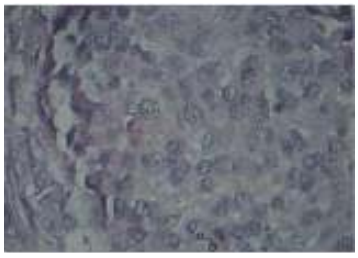

Figure 3: Large cell with coarse nuclear chromatin & abundant cytoplasm (H&E-40x)

DISCUSSION

Spermatocytic seminoma is an uncommon neoplasm unique to the testis with clinicopathologic features distinctive from classic seminoma. It was first recognized and described by Masson ("le seminome spermatocytaire") in 1946.[1] It is a rare tumour, comprising only 30 to 40 % of all testicular germ cell tumours & 4 to 7 % of all seminomas.[1] Less than 400 cases have been reported in the literature since the first description.[2] Most cases present in the 6th decade. The mean age at diagnosis ranges from 50 to 60 years; therefore spermatocytic seminoma should be considered in the differential diagnosis of testicular germ cell tumors presenting in elderly males. Most present with slow, painless testicular enlargement, which may involve both testes. Spermatocytic seminomas are diagnosed based on tissue from orchidectomy. The macroscopic appearance of the tumour is of a mutinodular grey-white to tan coloured mass with gelatinous, haemorrhagic and necrotic areas and may extend beyond the testis Histologically, spermatocytic seminomas consist of three cell populations:[3]

- Small lymphocyte like cells with a large nuclear-to-cytoplasmic ratio (6-8 µm),
- medium sized cells with prominent nucleoli (15-18 µm) and,
- Large giant form like cells (50-100 µm).

Unlike classical seminoma, fibrous septation and lymphocytic infiltrates are not seen. Intratubular growth of spermatocytic seminoma can be seen, giving the appearance of separate tumour nodules within the testis. Rarely, spermatocytic seminomas may show sarcomatoid differentiation, as undifferentiated spindled cells intermingled within the typical appearing spermatocytic seminoma cells. Rhabdomyosarcomatous differentiation has also been described.[3] Clinical history, physical examination, and ultrasound provide important clues as to the nature of testicular swellings in general. Rarely the diagnosis of testicular tumours in these patients may be missed because testicular swelling is attributed to orchitis,[4] as indeed happened in this patient. Histopathological examination is confirmatory in such cases.

CONCLUSION

Testicular germ cell neoplasms like seminoma can rarely mimick a case of chronic orchitis. Our case emphasizes the necessity of careful histopathological examination, especially in elderly patients presenting with uncommon clinical manifestations, to unearth the silent lesions.

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