BILATERAL SIMULTANEOUS TESTICULAR SEMINOMA: A CASE REPORT AND REVIEW OF LITERATURE

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ABSTRACT

A case of 28 years old patient with bilateral testicular seminoma is reported here with literature review.

Key Words: *Testes, Seminoma, Bilateral, Tumour.*

INTRODUCTION

The prevalence of testicular tumors is on the rise. Bilateral simultaneous testicular germ cell tumour; though rare; are reported in the literature[1].

Tumours of the testes are common in young male population. Seminoma usually occurs above the age of 40 years while other tumours like teratoma is mostly seen in the younger age group. Tumours are more common in the undescended testicles. Bilateral testicular tumours are uncommon. Some authors have reported micro-calcification in the testes associated with seminomas[2]. Genetic predesposition have also been reported in the literature[3]. Bilateral seminomas have also been reported in the literature after 34 year of orchidopexy[1].

CASE REPORT

A 28 years old patient reported to outpatient clinic with the complaint of right testicular painless swelling of 3 months duration. He is married with two children and has been smoking 7-8 cigarette per day for the last five years. On examination right testicle was found to be enlarged to a cricket ball size. It was hard in consistency with smooth surface. Epidydymis felt normal. Overlying skin sensations were intact. The other testis was found clinically to be normal. Patient was asked to get ultrasound of testes and abdomen done. He came with the report that both testes were enlarged with multiple solid masses measuring 11 mm to 57 mm in diameter on right side and 9 -19 mm in diameters on left side with no abdominal lymph adenopathy. Patient was counseled for exploration via inguinal approach. He refused to undergo surgery. Two days later he came back and requested that only right side be operated. Meanwhile serum alpha fetoproteins were found to be 2.49 (n = 0.0-5.5), B HCG 11.90 (n = 0.0-10) and lactate dehydrogenase (LDH) 1238 (n = 220-480). At surgery the right testis was found to be neoplastic and so was removed. Histology report came as seminoma (classical). He made uneventful recovery. Patient refused any more treatment and therefore we could establish the diagnosis of seminoma with similar histological picture on left side by doing only FNACB. Patient on his own wish went to Shaukat Khanum Hospital Lahore for further treatment. Since then he was lost to follow up.

DISCUSSION

Testicular tumor cancer represents the most frequent malignancy in males from 15 to 35 years of age, being one of neoplasia with highest cure rates. When metastatic cancer and hematological neoplasia are excluded, the prevalence of bilateral germ cell tumors of testicals is 1— 4%, and its metachronous tumor is 75%. Bilateral synchronous tumors are even rare [4]. The incidence of tumor in imperfectly descended testis as compared to normal testis varies from 9-30% [5].

The pathogenesis of testicular germ cell tumors has been linked to primordial germ cells (PGC's). The receptor tyrosine Kinase (c-KIT) is necessary for migration and survival of PGC's and is expressed in intratubular neoplasia germ cells and seminomas. The mutation frequency of c-KIT

exon 17 has been found to be significantly higher in bilateral synchronous seminomas. This may be responsible for the pathological progression of such tumors [3]. Bilateral testicular tumors like seminoma is not a common occurrence. A 69 years old man has been reported in literature with bilateral simultaneous seminoma [1]. The reported incidence of bilateral synchronous testicular tumor is 0.17% of all germ cell tumours. A 25 yrs old male has been reported who underwent bilateral orchiectomy for seminoma and 4 cycles of chemotherapy. He was disease free after 2 years of follow up [4].

Bilateral metachronous seminoma has been reported in world literature [2, 6]. A case of 36 years old patient has been reported in literate where seminoma was diagnosed on one side and embroynal cell carcinoma on other side. These tumors were bilateral and synchronous [7].

Walid KA etal reported 960 patients with germ cell tumor. Twenty seven of these developed bilateral disease; 24 out of 27 had metachronous tumors while 3 had synchronous tumors. Only 7 patients had identical histological type on both sides. Two of the 3 synchronously bilateral tumors had different histological types on both sides. (seminoma, embryonal cell carcinoma) [8]. In our case both sides' tumors were reported to be seminomas. Increased prevalence of primary testicular tumors has been reported in literature in patients with microlithiasis in testis. A case with testicular microlithiasis has been reported who developed bilateral metachronous seminoma 5 and 9 years after testicular microlithiasis was diagnosed [2]. Tumor markers like

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