Case report:

Bilateral Anaplastic Seminoma in Undescended Testis

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It is a well established fact that cryptorchid testis are at a greater risk of malignant transformation than a normal testis. A maldecended testis is seven to ten times more likely to develop a testicular tumor than the general population[1]. Seminoma has been reported to be the commonest germ cell tumour that develops in an undescended testis. Three types of seminoma have been described, classic or typical, anaplastic and spermatocytic. Anaplastic seminoma is a rare subtype of seminoma, it accounts for 5% to 7% of all seminomas[2]. We report a case of bilateral anaplastic seminoma in a cryptorchid male.

Key words: Seminoma, undescended testis, testicular tumour

A 26 years old male presented in June 1995 with a six month history of progressive painless swelling in the lower abdomen associated with weight loss and anorexia. Abdominal examination revealed a hard swelling about 20x15cm arising from the pelvis, reaching above the umbilicus. His scrotum was empty and hypoplastic. Body proportions and sexual developments were normal. A fine needle aspiration cytology reported germ cell tumour probably seminoma. A trucut biopsy confirmed an undifferentiated malignant tumour.

At laparotomy a huge lobulated mass arising from the pelvis and filling the whole of the lower abdomen was excised completely, weighing 1.85Kg. Macroscopically it was whitish in colour with a lobulated and nodular surface. No testicular parenchyma was discernable.

Microscopically there were groups of malignant cells separated by incomplete fibrous septa forming lobules. The fibrous septa were infiltrated by moderate chronic inflammatory cells with thin dilated vascular spaces, which were prominent in some areas. The individual cells were rounded to polyhedral with vesicular nuclei prominent nucleoli and clear to eosinophilic cytoplasm. Scattered giant cells were also seem. Mitosis were 2 to 3 per high power field. Conclusion anaplastic seminoma. Our patient made an uneventful postoperative recovery and was referred to Shaukat Khanum Memorial Cancer Hospital, Lahore for radiotherapy and chemotherapy. At present he remains well and disease free.

Discussion

The typical patient of anaplastic seminoma has a mean age of 30 years with a range of 20 to 50 years. About 13% of these men develop their tumours in cryptorchid testis or a testis that has undergone an orchidopexy[3]. Bilateral germ cell tumours have been known for many years it was first reported in 1853 by Bidard. In 1987 Scheiber reported 20 cases of bilateral germ cell tumours[8]. Most patients present late with disseminated disease. Stage I disease is confined to the testicle. Stage II disease has radiographic or clinical evidence of metastases to para-aortic iliac or inguinal lymph nodes, or microscopic evidence of invasion beyond the testis. Stage III disease has radiographic evidence of metastases to mediastinal or supraclavicular lymph nodes. Stage IV disease is when the metastases are more widespread than Stage III.

Of the three types of seminomas the spermatocytic seminomas are the most differentiated, with a 5-year survival rate approaching 100%. They account for about 3% of all seminomas[4]. Classic seminomas account for 92% of the total testicular seminomas the 5 years survival is about 92%[4]. The anaplastic variety is the rarest, about 5% and the most undifferentiated with a 5 year survival rate of about 74%[2].

Mostofi FK reviewed 6000 cases of testicular neoplasms, he described the hallmark of anaplastic seminoma as the presence of three or more mitotic figures per high power microscopic field. The cells are polygonal of various size and shape with clear to granular acidophilic cytoplasm. Nuclei vary in size and shape, are large and prominent, with one or more hyperchromatic nucleoli[7]. As anaplastic seminoma is a rare tumour and the number of cases are small so a comparison with typical seminoma is difficult. Patients with anaplastic seminoma tend to do badly, stage for stage as compared to the other types of seminoma[2]. This has been the conclusion of Maier as well who studied 26 cases of anaplastic seminoma[6] Johnson et al concluded from a study of patients treated at M.D. Anderson Hospital that prognosis of anaplastic seminoma was similar to that of typical seminoma when staging is taken into consideration[2].

The main stay of treatment is radiotherapy, Stage I patients receive 2000 to 2500 rads to the para-aortic and ipsilateral pelvic and inguinal lymph nodes. Stage II disease is treated with a minimum dose of 3000 rads to the para-aortic, inguinal and iliac lymph nodes, followed by 2000 to 2500 rads to the mediastinum and supraclavicular lymph nodes. The role of chemotherapy in

early stages of anaplastic seminoma is uncertain it is mainly used in conjunction with radiotherapy in disseminated disease[2]. As many of these patients have disseminated disease, trials with adjuvant chemotherapy are indicated[5].

References

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