



STUDY OF SEMINOMA TESTIS PRESENTING AS LARGE INGUINAL MASS

General Surgery

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ABSTRACT

Testicular tumours are strongly associated with cryptorchid testis. The higher the level of arrest during the descent, greater is the risk. The incidence of testicular tumour is 11 times more in inguinal testis and 50 times more in intra abdominal testis. We are reporting a case of seminoma testis in an undescended right inguinal testis in a 30 years old adult male presented as an inguinal lump. In any case of inguinal lump, clinician must look for history and examination of the scrotum to rule out an undescended testis.

KEYWORDS

Inguinal Lump, Undescended Testis, Seminoma

INTRODUCTION

Seminoma is the most frequent carcinoma of the testis in the fourth decade of life and constitutes 60% to 65% of germ cell neoplasm. Here we report a patient with seminoma arising from an undescended testis which is the most common form of presentation, although a small percentage of seminomas can arise outside of the testis also, most often within the anterior mediastinum e.g anterior mediastinal germ cell tumours.

CASE PRESENTATION



Fig.1 Inguinal Lump



Fig.2 Intraoperative image-testicular lump

A 30 years old male presented with complains of rapidly enlarging swelling in the right inguinal region with mild discomfort for the last 9 months. Pain was continuous, dull aching in nature. Patient was unaware of the fact that he had the absent testis in the right scrotum since childhood.

On general examination patient was found to be normal except for mild anemia.

On local examination an oval 12 cm x 6cm lump could be palpated in right inguinal region which was firm to hard in consistency with smooth surface, well defined regular margin with restricted mobility. Abdominal examination was unremarkable. Right hemiscrotum was found to be empty and left hemiscrotum had the testis normal in position, size, shape, consistency and with normal testicular sensation. No lump was found on examining the supraclavicular fossa. Digital rectal examination findings were normal.

Our provisional diagnosis was malignant tumor of the right inguinal testis.

On abdominal and inguinal ultrasound, the inguinal swelling was demonstrated as a 13cm x 8cm x 5 cm well defined and oval homogenous mass of low echogenicity compared to normal testicular tissue, with no cystic regions or calcification.

On abdominal and pelvic CT right inguinal mass as well as a few para aortic lymphnodes visualized at the level of renal vessels, largest

measuring 2.8 cm.

On study of the tumor makers, AFP was not elevated and beta HCG was marginally raised.

Case was diagnosed as seminoma of right undescended testis and the patient underwent right high inguinal orchidectomy and specimen was sent for histopathological examination which confirmed the diagnosis. Patient was later referred to oncology clinic at our institute.

Discussion:-

Germ cell tumours of testis can be benign or malignant (Seminoma and non-Seminoma). Germ cell tumours most frequently occur in gonads only 2-5% of them arise in extragonadal sites such as mediastinum, retroperitoneum, pineal gland and sacral area [1]. Germ cell tumours are the most common malignancy in men aged 15 to 35 years, with seminoma accounting for one third of such cases.

Risk Factors :-

- Undescended testis (10-40 times increased risk)[2]
- Previous tumour in contralateral testis
- Family history of testicular tumour
- Testicular microlithiasis
- Other risk factors e.g. HIV, Mumps, Orchitis & history of trauma.

In undescended testicles most common ectopic location of testis is superficial inguinal pouch. A high intra-abdominal temperature has been incriminated as the cause of carcinogenesis in the testis. The position of the undescended testis is related to the likelihood of carcinogenesis with the intra abdominal location having the highest risk for malignancy[3]. The relative risk of malignancy is highest for the intra abdominal testis (5%) and is lower for the inguinal testis (1.25%) [4]. Orchidopexy does not alter the malignant potential of the cryptorchid testis; however it facilitates examination and tumour detection [5]. Bilateral tumours are rare (< 2%) and are almost always asynchronous.

Risk is greater for the abdominal versus inguinal location of undescended testis. An abdominal testis is more likely to be seminoma, while a testis surgically brought to the scrotum by orchiopexy is more likely to be a nonseminomatous SGCT.

Seminomas by definition must be pure seminoma on histology and not associated with an elevated AFP. If either of these criteria is not met then tumour must be classified as non seminomatous and managed accordingly. Pure Seminomas are subdivided in to 3 histological subtypes

- Classical 85%
- anaplastic, 10%

- Spermatocytic 5%

On gross examination, seminomas are pale grey to yellow nodules that are uniform or slightly lobulated and bulge from the cut surface. Three clinical stages have been described—

Stage 1 – Tumour limited to testis with or without invasion of epididymis or spermatic chord.

Stage 2 -- Tumour has retroperitoneal lymphnode metastases.

Stage – 3 – Tumour has distant metastases.

The management of the contralateral testis in cryptorchid patients is controversial and there are no firm guidelines for their management. About 5%-20% of patients with a cryptorchid testis develop a testicular tumour on the opposite, normally descended testis[6]. Some authors suggest prophylactic orchidectomy of the uninvolved testis as the preferred option rather than stringent follow up of unreliable patients [7]. Dramatic improvements in survival have resulted from the combination of effective diagnostic techniques, improvement in serum tumour markers, effective multidrug chemotherapeutic regimens (bleomycin, etoposide and cisplatin). Prognosis is good for all stages with greater than 90% cure rate.

Conclusion :-

Rapidly enlarging inguinal or abdominal mass with undescended testis should alert clinicians towards possibility of testicular tumour and initiation of prompt intervention. An undescended testis, whenever possible, must be brought down into its normal scrotal position within school going age.

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