

Primary Adenocarcinoma of epididymis: A case report and review of literature

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ABSTRACT

Primary tumours of the epididymis are rare and usually benign, with adenomatoid accounting for single most pathology. Most common paratesticular malignant tumours are rhabdomyosarcoma. Malignant epididymal tumours are rare and present as either primary or metastatic lesions. Case report: We present a rare case of carcinoma of the left epididymis in a 72 year-old man. This case is clinicoradiologically suspected as a case of carcinoma of the left epididymis. The pathological diagnosis was adenocarcinoma of the epididymis. The patient was treated by surgery and radiotherapy and is disease free since 9 months after treatment.

Key words: Primary carcinoma, epididymis, adenocarcinoma

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INTRODUCTION

Primary adenocarcinoma of the epididymis is rare malignancy with approximately 60 cases reported in the literature till 2013.^[1]

Because of the rarity, its etiology and histogenesis is still unclear. It usually occurs in men older than 60 years, although the age can range from 17 to 91 years.^[2] The clinical manifestation is non-specific one. The most common manifestation is painless scrotal swelling.

We report a case of adenocarcinoma of the left epididymis in a 72 year male, with

history of phimosis since childhood and initial presentation of hydrocele with painless upper scrotal swelling.

CASE REPORT:

A 72 year-old male patient with history of phimosis since childhood, underwent circumcision due to recurrent urinary tract infection in 1998. He developed hydrocele of the left testis in 1999 and operated, and developed left paratesticular mass from 2010.

FNAC from the mass revealed adenocarcinoma. Ultrasound of the

bilateral testis revealed hypoechoic mass of size 2.3x1.56cm over head of the left epididymis. Serum markers like LDH, AFP, beta-HCG and PSA were 163.9 U/L, 4.66 IU/ml, 0.23Miu/ml and 1.94 ng/ml respectively (within normal limit). CECT scan of abdomen and pelvis revealed about

40x35x32mm size enhancing lobulated mass at left inguinal region involving head of the epididymis and adjacent spermatic cord, with both testes appears normal and there was no inguinal lymphadenopathy (Figure-1).



Figure-1: CECT scan of abdomen and pelvis revealed 40x35x32mm enhancing lobulated mass at left inguinal region involving head of the epididymis and adjacent spermatic cord.

Chest x-ray ruled out lung metastasis. He underwent left high-inguinal orchidectomy and left hemiscrotectomy on 12/02/2013. In histopathological examination, gross section revealed a greyish white tumour of size 5.5cm seen in the epididymis and microscopic section revealed a tumour comprised of round to polygonal cells with

moderate nuclear pleomorphism, prominent nucleoli, increased mitosis, and moderate to abundant cytoplasm. The cells were arranged in tubules, cords, papillae, and occasional nests separated by desmoplastic stroma with focal myxoid changes favouring moderately differentiated adenocarcinoma of the epididymis (Figure-2).

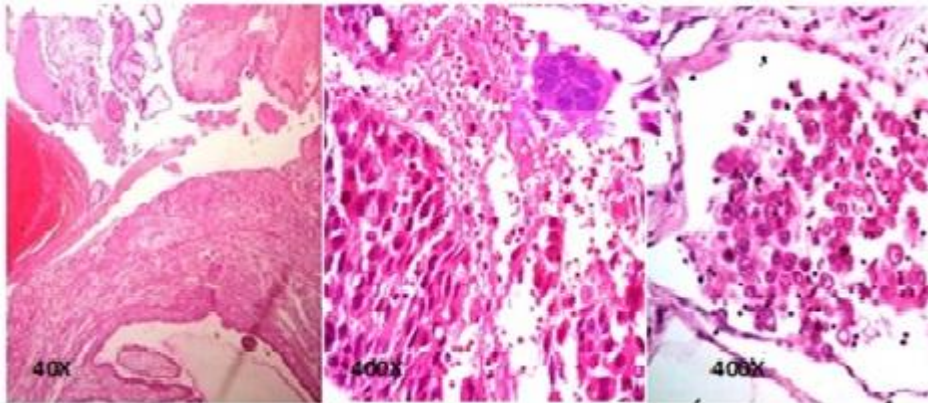


Figure-2: Presence of normal epididymal lining with presence of tumor cells in sheets and papillae and extensive areas of hemorrhage and necrosis in H&E 40X magnification. Tumor cells have pale eosinophilic to clear cytoplasm, pleomorphic hyperchromatic nuclei with many mitotic figures and presence of tumor giant cell with extensive areas of necrosis and vascular invasion in H&E 400X magnification.

Vascular invasion was positive. The surrounding stratified squamous epithelium, vas deferens, and spermatic cord were free of tumour. He had not come for further treatment due to personal matters. Subsequently, he developed left inguinal lymphadenopathy and underwent left inguinal node dissection in September-2013. Histopathology report revealed

metastatic adenocarcinoma with vascular invasion (figure-3). He received external beam radiotherapy to left inguinal area by CO-60 teletherapy machine with total dose of 50GY in 25 fractions last in November-2013 and tolerated well to radiotherapy. He is on regular follow-up since last 9 months with disease free.

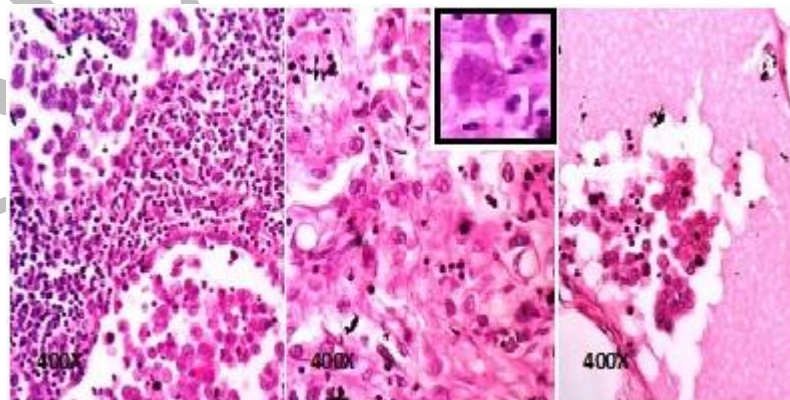


Figure-3: Tumor cells present in clusters in between the lymphoid structures, also arranged dispersedly, with many signet ring cells, and presence of a tumor giant cell (inset) and lymphovascular invasion in H&E 400X magnification.

DISCUSSION

Approximately 25% of all epididymal tumours are malignant, and 8.1% of these are metastatic. Primary tumours metastasizing to epididymis are usually stomach (42.8%) and prostate (28.5%). Other possible sites are pancreas, colon, kidney, etc. The average survival of patients with a metastatic tumour is 9.1 months.^[3] In addition to the painless scrotal swelling,^[4] the incidental findings include hydrocele, epididymitis and inguinal hernia.^[2] In some cases, the history of hydrocele or chronic epididymitis existed several years before the presence of swelling.^[5] In our case, the patient had history of hydrocele one year back, before the present complain of painless nodular scrotal swelling.

In addition, in several reported cases, the history of trauma also existed,^[6] indicating the prior trauma may be related to this tumour. But the present case had no history of trauma, so the relationship between the trauma and adenocarcinoma of the epididymis should be further testified. There is no literature supporting the history of the presence of phimosis in adenocarcinoma of the epididymis.

The presence of the history of phimosis in our case may be an incidental finding, which needs further verification. To date, the generally accepted histologic

criteria of the adenocarcinoma of the epididymis include the location of the tumour in the mediastinum of the testis, transition from the normal epithelial structures to neoplastic structures in the rete testis, no evidence of teratoma, exclusion of any primary tumour of a distant site, lack of direct extension through the tunica and finally a solid gross appearance.

The differential diagnosis includes metastatic adenocarcinoma, malignant mesothelioma^[7] and other uncommon tumours.^[8] Metastatic adenocarcinoma can be ruled out by clinical history. Mesothelioma arises in the tunica vaginalis, while the adenocarcinoma mainly involved the mediastinum of the testis.

Inguinal radical orchidectomy is the most suitable treatment of choice for patients with an epididymal mass.^[9] There exists no generally accepted consensus about the adjuvant treatment of primary epididymal carcinoma. Carboplatin and paclitaxel combination is the commonly preferred first-line chemotherapy (CT) regimen in metastatic epididymal tumours, however no specific CT regimen is not recommended till date.

There is uncertainty in the role of adjuvant radiotherapy (RT) due to the rare entity.^[10] The 5 years survival rate in

carcinoma of the epididymis was reported as 13%.^[2] A well-organized clinical approach to epididymal neoplasms has not been developed because of paucity of occurrence.

Our case treated with surgery and radiotherapy. The patient remains disease free since last 9 months follow-up.

CONCLUSION

Because of the rarity, etiology and histogenesis of adenocarcinoma of the epididymis is still unclear. History of phimosis since childhood in our case needs further verification. In our case, patient received surgery and radiotherapy without chemotherapy. Due to the presence of vascular invasion, inguinal lymph node metastasis and aggressiveness of the disease, the case needs regular follow-up both clinically, serologically and radiologically. If there is any disease recurrence, we should treat in the multidisciplinary approach.

REFERENCES

1. Hagiuda J, Matsumoto M, Hanawa Y, Ishikawa H, Marumo K. Adenocarcinoma of the rete testis. A case report. *Nihon Hinyokika Gakkai Zasshi* 2010;101: 749-53.
2. Sanchez-Chapado M, Angulo JC, Hass GP. Adenocarcinoma of the rete testis. *Urology* 1995; 46:468-75.
3. Algaba F, Santaularia JM, Villa vicencio H. Metastatic tumor of the epididymis and spermatic cord. *Eur Urol* 1983;9:56-9.
4. Mehan DJ, Chehval MJ. Adenocarcinoma of the rete testis. *Urology* 1977;9:459-60.
5. Desberg D, Tanno V. Adenocarcinoma of the rete testis. *J Urol* 1964;91:87-9.
6. Crellin RP, Cornbleet MA, McIntyre MA. Adenocarcinoma of the testis-lack of response to conventional chemotherapy. *Br J Urol* 1993;71:98-9.
7. Trpkov K, Barr R, Kulaga A, Yimaz A. Mesothelioma of tunica vaginalis of “uncertain malignant potential” an evolving concept: case report and review of the literature. *Diagn Pathol* 2011;6:78.
8. Bremmer F, Schweyer S, Behnes CL, Blech M, Radzun HJ.

- Sertoliform cystadenoma: a rare benign tumor of the rete testis. *Diagn Pathol* 2013;8:23.
9. Ganem JP, Jha very FM, Marroum MC. Primary adenocarcinoma of the epididymis: case report and review of the literature. *Urology* 1998;52:904-8.
10. Yu C, Huang J, Chiang H, Chen MT, Chang LS. Papillary cystadenocarcinoma of the epididymis: a case report and review of the literature. *J Urol* 1992;147: 162-65.

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