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A Rare Testicular Cancer, Adenocarcinoma of Rete Testis: A Case Report

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Abstract--*Primary adenocarcinoma of rete testis is an extremely rare intrascrotal neoplasm occurring most frequently in elderly males but has a wide age range of 8-91 years. Although near about 60 cases of rete testis carcinoma have been published till date, less than 30 cases had fulfilled the strict diagnostic criteria required for true rete testis adenocarcinoma. A 32-year-old male was admitted with complaints of swelling and pain in left side of the scrotum since 1 year ago. Physical examination revealed a giant swelling of the left scrotum. Laboratory findings showed elevation of α-fetoprotein (AFP) with level of >1210 ng/ml and β-human chorionic gonadotropin (β-HCG) with level of 15739 mIU/ml. Chest X-Ray showed a suspected of a metastatic nodule in the lung. Left inguinal orchiectomy was performed. Pathological examination demonstrated that the edge of the incision and spermatic chord was free of tumor. The histopathological conclusion was adenocarcinoma. 3 months after the operation AFP level fell to 203,2 ng/ml, the β-HCG fell to 3732 mIU/ml, and the LDH level was 788 U/L. 5 months after the operation CT-Scan showed that there was a recidive mass in the projection of left testicle, multiple para-aortic lymphadenopathy, and multiple metastatic nodes in the both side of the lung alongside with elevated levels of AFP (7978 ng/ml) and β-HCG (21866 mIU/ml). The therapy continued with 4 series BEP Chemotherapy. Adenocarcinoma of the rete testis is an extremely rare tumor type with a poor prognosis.*

Key words--*Adenocarcinoma, AFP, β-HCG, LDH, Lung, Testicular*

I. INTRODUCTION

Primary adenocarcinoma of rete testis is an extremely rare intrascrotal neoplasm approximately 60 cases reported in the literature, occurring most frequently in elderly males but has a wide age range of 8-91 years. Although near about 60 cases of rete testis carcinoma have been published, less than 30 cases had fulfilled the strict diagnostic criteria required for true rete testis adenocarcinoma[2]. The delayed diagnosis of right testis adenocarcinoma is often made by the pathologist following surgery, due to non-specific clinical presentation and symptoms.

The prognosis of metastatic disease is very poor and there is no standard treatment strategy defined.

Case Report

A 32-year-old male was admitted with complaints of swelling and pain in left side of the scrotum since 1 year ago. The mass was previously small and then getting bigger gradually. The complaints got worsened since 3 months ago alongside with a bad smells, easily bleed, and decrease of body weight. Complaints of shivering fever accompanied by weakness since 1 week before admission. Physical examination revealed a giant swelling of the left scrotum. Laboratory findings showed elevation of α-fetoprotein (AFP) with level of >1210 ng/ml and

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β-human chorionic gonadotropin (β-HCG) with level of 15739 mIU/ml. Chest X-Ray showed a suspected of a metastatic nodule in the lung. Considering the aforementioned results, a diagnosis of primary testicular tumor was proposed.

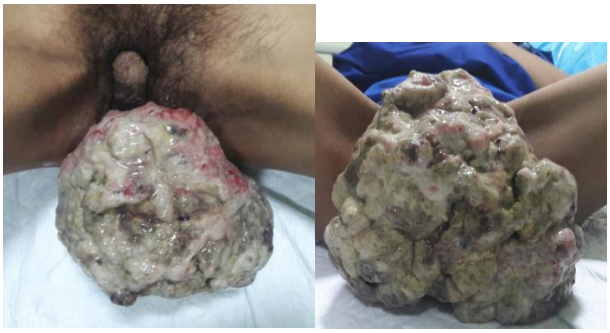


Figure 1. Tumor presentation before the surgical procedure. The tumor has rough and irregular surface with size of 16 x 15 x 8,5 cm

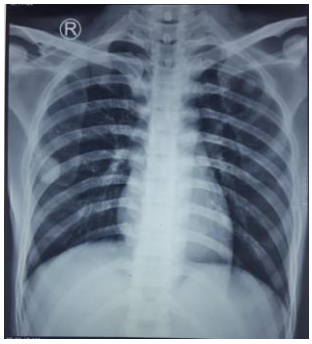


Figure 2. Showed metastatic nodes in the lung

Left inguinal orchiectomy was performed based on the diagnosis. Pathological examination demonstrated that the base of the tumor attached to the tissue (<1 mm), edge of the incision and spermatic chord was free of tumor. The histopathological conclusion was adenocarcinoma. 3 months after the operation AFP level fell to 203,2 ng/ml, β-HCG fell to 3732 mIU/ml and the LDH level was 788 U/L.

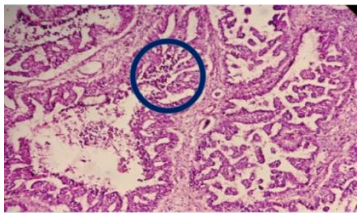
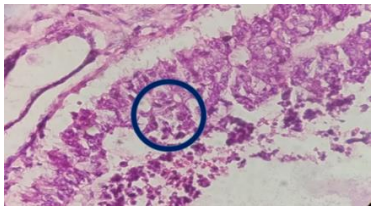
A  B 

Figure 3. Microscopic view from tumor samples (A) 100x (B) 400x

CT-Scan was performed 5 months after the operation showed that there was a residive mass in the projection of left testicle, multiple para-aortic limphadenopaty, and multiple metastatic nodes in the both side of the lung alongside with elevated levels of AFP (7978 ng/ml) and β-HCG (21866 mIU/ml). The therapy continued with 4 series BEP Chemotherapy.

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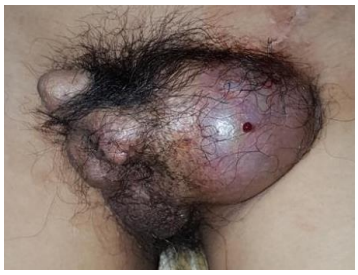

Figure 4. Tumor presentation 5 months after the surgery procedure. There is a mass in the projection of left testicle

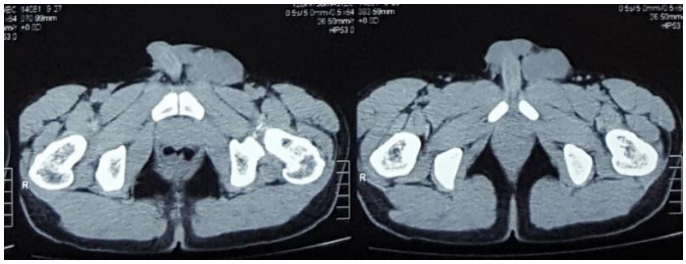

Figure 5. CT-Scan showed a residive mass in the projection of left testicle

After first cycle of 4-series BEP Chemotherapy the size of the tumor is shrinked. The treatment is continued with next cycle of chemotherapy.

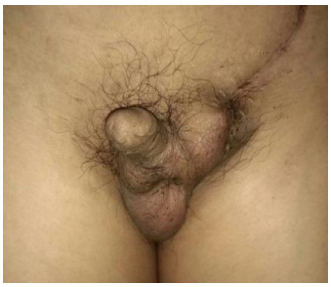

Figure 6. Tumor presentation after first cycle chemotherapy

II. DISCUSSION

Most patients with adenocarcinoma of rete testis present with scrotal pain and/or swelling and frequently tumors are masked by a hydrocele, hematocele, inguinoscrotal hernia, epididymitis etc. The differential diagnosis includes entities most importantly malignant mesothelioma of tunica vaginalis, ovarian-type (mullerian) tumors of testis and paratestis, metastatic adenocarcinoma, epididymal adenocarcinoma, malignant sertoli cell tumors, etc.

Early diagnosis with surgical management is recommended by the majority of urologists. There are no specific clinical manifestations but tumor markers, including AFP and β-HCG, may help to detect the tumor earlier. CT-positron emission tomography may provide improved diagnostic sensitivity but is considered expensive and is not cost-effective[9]. Ultrasound has been shown to be a reliable and valuable tool in the diagnosis of scrotal abnormalities. This procedure is relatively cheap and noninvasive. In addition, it provides real-time

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imaging, reveals internal blood flow properties, causes little discomfort and is easily repeatable, as well as being suitable for X-ray-sensitive organs as an ionizing radiation-free test. Ultrasound diagnostics are therefore recommended for confirming the presence of testicular masses.

The prognosis of adenocarcinoma seemed poor in the earlier reports. Cancer cells may invade locally, metastasize via lymphatics to the para-aortic and iliac lymph nodes, or hematogenously spread to the sites of lung and bone. The treatment of choice is surgery which includes radical orchiectomy and retroperitoneal lymph node dissection (RPLND). Chemotherapy and radiotherapy only have a limited benefit to patient's survival time. These were 40~50% patients died within the first year after diagnosis. Three and five-year disease-free survival was 49% and 13%, respectively. Only 37% of the reported patients had an average 8-month tumor-free survival after diagnosis.

III. CONCLUSION

Adenocarcinoma of the rete testis is an extremely rare tumor type with a poor prognosis. A better prognosis may be reached if diagnosis and surgical were conducted treatment earlier

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