

Case Report

Malignant Mesothelioma of Tunica Vaginalis

M. Mokhtari. MD*, H. Mazdak. MD**

ABSTRACT

Mesothelioma is often diagnosed as a malignant scrotal mass without pain or inflammatory signs. It is a very rare tumor with quite uncommon sites of involvement. This form of malignancy generally involves pleura, with a differential diagnosis of undifferentiated carcinoma expectable in this area related to epididymis and rete testis.

KEY WORDS: Malignant mesothelioma, Scrotal mass

Malignant mesothelioma is a diffuse mass that usually spreads widely in the pleural space and is associated with extensive pleural effusion and direct invasion to thoracic structures besides metastatic spread^{1, 2, 3}. Mesothelioma also arises in the peritoneum, pericardium or tunica vaginalis uncommonly^{4, 5}. The tumor can be solid or cystic with yellow or white color and a relatively firm consistency⁵. This is a rare case of mesothelioma, only 78 cases ever reported until 2002⁶.

Case Report

The case was a 53 year old man with a scrotal mass since 6 months earlier. No history of smoking, asbestos contact, pain, malaise, genitourinary symptoms such as dysuria or hematospermia, impotence or hematuria was mentioned. In physical examination, there were neither local genitourinary signs such as prostatic enlargement, hydrocele, and tenderness nor general signs like fever and cachexia. All laboratory data showed normal values even for PSA. Abdominal and pelvic CT scan was normal. Sonography helped no more. Exploring the scrotum, a brown mass was seen without invasion to testis. The mass was excised and sent for pathology. Its size was 4×2×2cm with a soft consistency and without cyst formation, hemorrhage,

necrosis or secretion. In microscopic view, cuboidal cells with tubular structures were seen. Immunohistochemistry showed vimentin (+), cytokeratin (+), MA (+), CEA (-). Tumor recurred one month later and was excised surgically again for the second time.

After 2 years the disease was controlled with chemotherapy. No distant metastasis was found.

Pathology report said: "Although unexpected grossly, immunohistochemical findings excluded adendocarcinoma and confirmed malignant mesothelioma."

Discussion

Mesotheliomas present variable histological patterns including epithelial, fibrous and mixed^{1,2}. This histological variety is due to tumor location. The pleural mesotheliomas are predominately fibrous, whereas those at the peritoneum and tunica vaginalis are mostly epithelial³. Mesothelial cells develop as cuboidal, columnar or flattened cells forming tubular or papillary structures⁵ resembling adenocarcinomas.

Presence of the following features favor mesothelioma rather than adenocarcinoma^{4,5}

1. Lack of staining for CEA.
2. Strong staining for vimentin and presence of epithelial glycoprotein.

*Department of Pathology, Isfahan University of Medical Sciences, Isfahan, Iran

**Department of Urology, Isfahan University of Medical Sciences, Isfahan, Iran.

Reactive mesothelial hyperplasia secondary to hydrocele or an underlying inflammatory process is ruled out by presence of atypism besides lack of a history of those predisposing factors mentioned above⁵.

References

1. Rosai J. male reproductive system. In: Rosai J. *Ackerman's Surgical Pathology: St Louis, Mosby, 1996:1300*
2. Thomas M, Ulbright M, Lawrence M. testicular and paratesticular tumors. In: Stephen SS. *Diagnostic Surgical Pathology :Philadelphia, lippincott Willams and Wilkins, 1999:2016*
3. Ivan D. male reproductive system. In: Ivan D, James L. *Anderson's Pathology: St Louis, Mosby, 1996:2189*
4. Ramzi SC, Vinay K, Tucker C. male genital tract. In: Cotran RS, Kumar V, Collins T. *Pathologic Basis of Diseases. Philadelphia, WB Saunders, 1999:1081-1099*
5. Said JW, Nash G, Lee M. immunoperoxidase localization of keratin proteins, carcinoembryonic antigen, and factor viii in adenomatoid tumors: evidence for a mesothelial derivation. *Hum Pathol, 1982;13:1106-1108*
6. Jay PH. tumors of the testis and testicular adnexa. In: Howard MP, Bruce LM. *Clinical Urography. Philadelphia, WB Saunders, 2000:1736*