Unusual presentation of more common disease/injury

Adenomatoid tumour of testis

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Summary

Adenomatoid tumour is a rare neoplasm of mesothelial origin commonly seen in male and female genital tract. In this case report, the authors present a case of adenomatoid tumour in a 35-year-old male who presented with 1-year history of scrotal swelling. A clinical diagnosis of testicular neoplasm was made but final diagnosis of adenomatoid tumour was made after excisional biopsy.

BACKGROUND

Clinical diagnosis of testicular neoplasm was made; however, cytology was inconclusive and final diagnosis of adenomatoid tumour was made after histopathological examination.

CASE PRESENTATION

A 35-year-old male presented with palpable mass in right side of scrotum for 1 year which was associated with mild pain and dragging sensation. There was no history of trauma or sudden enlargement of swelling. On local examination a mass was present on lower pole of right testis which was 2 cm in diameter, firm in consistency and non-tender. Overlying skin appeared normal. Left

testis was unremarkable. Fine needle aspiration cytology was haemorrhagic and inconclusive. A clinical diagnosis of testicular neoplasm was made. Surgery was done and right testis along with mass was removed. Mass was 2×1.5 cm, greyish white in colour, firm in consistency and on cut section it was solid, homogenous and greyish in colour. Testis appeared normal. Microscopic examination revealed solid cords, tubules and glandular spaces (figure 1) lined by cells showing cuboidal to flattened epithelium with pale and vacuolated cytoplasm resembling to fat or signet ring cells (figure 2). Occasional mitotic figures were seen. Mild mononuclear infiltrate was also noticed. On the basis of these findings a diagnosis of adenomatoid tumour was rendered.

Figure 1 Section showing tubules, cords and glandular arrangement of cells (H&E ×125).

Figure 2 Section showing large intracytoplasmic vacuoles in lining epithelial cells resembling to fat or signet ring cells (H&E $\times 500$).

DIFFERENTIAL DIAGNOSIS

- Metastatic carcinoma
- Malignant mesothelioma
- Histocytoid haemangioma
- Large cell calcifying sertoli cell tumour with cord like pattern.

OUTCOME AND FOLLOW-UP

Patient was discharged in good conditions.

DISCUSSION

Adenomatoid tumour is a relatively uncommon benign tumour of mesothelial origin commonly located in epididymis,¹ uterus, fallopian tubes, ovary, testicular tunica or spermatic cord.^{2–3} Rarely they are found in extragenital locations like adrenal, bladder, pancreas, heart, pleura, intestinal mesentery, omentum and lymph nodes.^{3–5} They can be seen in all ages but are more common in third and fourth decades of life.⁶ In most of the cases they present as painless, firm, intrascrotal mass of less than 2 cm diameter; however, tumour of 12 cm diameter is also reported in literature.⁷ Size remain unchanged for years.⁸ Cytology shows monomorphic cells in clusters, sheets, cords and ill formed glands with round to oval nuclei, finely granular chromatin, small nucleoli and moderately eosinophilic cytoplasm.⁹ Cytological features may sometimes mimic testicular tumours.¹⁰ Grossly it appear as small, firm, greyish white nodule. Histologically three basic patterns are seen as tubules, cords and small nests of cells that are cuboidal with vacuolated cytoplasm which might look like signet ring like appearance but lacks mucin.¹¹ Reactive desmoplasia infiltrated by inflammatory cells may also be seen. The differential diagnosis include metastatic carcinoma, malignant mesothelioma, histocytoid haemangioma and large

cell calcifying sertoli cell tumour with cord like pattern. Immunohistochemistry shows positivity for cytokeratin, epithelial membrane antigen and calretinin and negativity for factor VIII related antigen and Ulex europeus agglutinin I, that supports a mesothelial origin.¹² On electron microscopy tumour cells reveal prominent microvilli, desmosomes and tonofilaments along with dilated intercellular spaces. Surgical excision is curative.

Learning points

- Adenomatoid tumour involve a variety of organs.
- Clinically they can mimic testicular neoplasm.
- Definitive diagnosis is made after excisional biopsy.
- Surgical excision is curative.

Competing interests None.

Patient consent Obtained.

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Alam K, Maheshwari V, Varshney M, Aziz M, Shahid M, Basha M, Gaur K. Adenomatoid tumour of testis. *BMJ Case Reports* 2011;10.1136/bcr.01.2011.3790, date of publication

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