



An Unusual Case of Isolated EpididymalMalakoplakia in a patient with Prostatic Carcinoma

KEYWORDS

Malakoplakia, Prostatic carcinoma, Testicular metastasis

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ABSTRACT Malakoplakia (MLP) is a rare chronic granulomatous condition that preferentially involves the urinary tract particularly the urinary bladder. Involvement of extra-vesical sites like testis, epididymis, kidneys, ureters, urinary pelvis, colon, lung, bone, retroperitoneum is now being increasingly recognised (Kang, Kim, Lee, and Kim, 2013) (McClure, 1980). Epididymal malakoplakia most often appears as an extension from an adjacent involved testis. We present a case of isolated epididymal malakoplakia, without concurrent testicular involvement in a patient with prostatic carcinoma which was clinically mistaken for testicular metastases. To the best of our knowledge, isolated epididymal malakoplakia is extremely rare. (Kang et al, 2013)

INTRODUCTION:

Michaelis-Gutmann (1902) and Von Hansemann first described malakoplakia a century ago as a chronic granulomatous disease which most commonly involves the urinary tract. This condition occurs as a result of an acquired defect in macrophage function causing impairment of bactericidal activity.

For practically 50 years, it was thought that MLP exclusively affected the urinary system, until Haukohl and Chinchinian (1958) described the first case in a patient with testicular involvement. Since then, many cases of genitourinary MLP have been documented in testes with or without epididymal involvement. However, exclusive involvement of the epididymis is uncommon, with just twelve cases published till date (Bandrés, Troyas, Lostal, Saldías, Cárdenas, and Parra, 2009).

CASE REPORT:

We report a case of a 56 year old male who presented with difficulty in passing urine and increased nocturnal frequency of urination since one year. He also complained of painful enlargement of right testis since one month. On evaluation, the prostate was enlarged and hard in consistency. Serum PSA level was 18.5 ng/ml. The right testis appeared slightly enlarged when compared to the left. A prostatic tru-cut biopsy revealed prostatic adenocarcinoma. Bilateral orchidectomy was done for hormonal ablation and to rule out testicular metastases from prostatic carcinoma.

On gross examination, both testes appeared normal. Right epididymis showed a circumscribed yellow white nodule measuring 1.5x1.0 cm [Fig 1].

<<Fig 1 – About here >>

Microscopic examination revealed mixed inflammatory reaction with sheets of histiocytes having abundant eosinophilic cytoplasm and intracytoplasmic owl eye/target shaped basophilic inclusion bodies (Michaelis-Gutmann bodies) [Fig 2] that were positive for von Kossa staining, suggesting a diagnosis of epididymal malakoplakia.

<<Fig 2 – About here >>

DISCUSSION:

The term "malakoplakia" was coined by Michaelis and Gutmann (1902) and was derived from the Greek words "malakos" meaning soft and "plakos" meaning plaque. Malakoplakia is characterized by the presence of macrophages having abundant eosinophilic cytoplasm (Von-Hansemann cells), with intracytoplasmic owl eye/target shaped basophilic inclusion bodies called Michaelis-Gutmann bodies that are pathognomonic of malakoplakia and represent incompletely digested bacteria on which calcium and iron salts are deposited in concentric layers and are positive with von Kossa stain, as in our case.

The disease mostly affects patients who are immunosuppressed, debilitated, suffering from chronic conditions like diabetes, alcohol liver disease, tuberculosis, and AIDS, and as in our case, cancer (Lew, Siegal, and Aronheim, 1988). The urinary bladder is the most commonly involved and its pathogenesis is related to recurrent urinary tract infections caused by E. coli and other anaerobic bacteria frequently seen in immunocompromised individuals.

The clinical presentation is usually in the form of acute or chronic orchitis with fistulizing abscesses not being uncommon. At times, it may present as a painless intra-scrotal mass simulating a testicular tumour. Forty cases involving only the testis have been reported in literature, and fourteen involving both testis and epididymis. Isolated involvement of the epididymis is rare, first described by Green in 1968 (Kang et al, 2013), with only 12 cases of epididymal malakoplakia having been documented in literature till date (Bandrés et al, 2009).

The epididymis can be involved by a number of other chronic inflammatory, granulomatous and neoplastic conditions and these have to be kept in the differential diagnosis while evaluating any case of epididymal pathology. Amongst the granulomatous etiologies, tuberculosis and sarcoidosis need to be considered. Other infectious etiologies that can be confused with malakoplakia are histoplasmosis and cryptococcosis. Neoplasms like adenomatoid tumours, interstitial cell tumour and lipomas are also known to occur in the epididymis. (Siders, Win, and Abaza, 2005).

Despite its inflammatory (and therefore benign) character, testicular / epididymal MLP is often misdiagnosed as a testicular mass and leads to orchiectomy, which is the only way to differentiate it from other malignant or infectious processes. Prognosis is usually good, and recurrence after orchiectomy is rare.

CONCLUSION

Epididymalmalkoplakia, although rare, should always be considered in the differential diagnosis of epididymalpathology, especially when isolated to the epididymis. Accurate diagnosis requires a high index of suspicion and proper identification of histological features along with the use of special stains like Von Kossa and PAS.

IMAGES AND LEGENDS

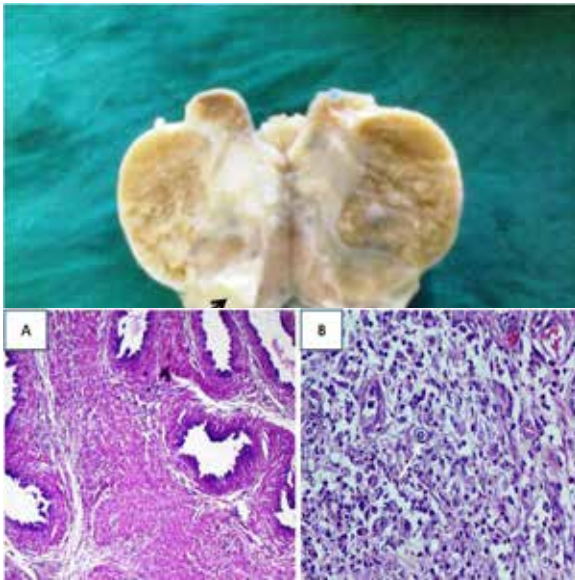


Fig 2A:H&E 100x -showing epididymal glands surrounded by macrophages with eosinophilic cytoplasm (Von Hanseman cells).

Fig 2B: H&E 200x - showing intracytoplasmic bull's eye shaped Michaelis Gutmann bodies.

REFERENCE

- Bandrés, S. A., Troyas, R. M. G., Lostal, J. L. C., Saldías, L. R., Cárdenas, A. P., &Parra, J. D. J. (2009). Malacoplakia of the testis: a new case report and a literature review. *ActasUrolEsp*, 33(9), 1028-31. | Haukohl, R.S.,&Chinchinian, H. (1958).Malakoplakia of testicle – report of a case.*Am J ClinPathol*, 29(5), 473-8. | Kang, Y. J., Kim, S. W., Lee, K. S., & Kim, K.H. (2013) Malacoplakia of the epididymis.*Korean J Urol*, 54(4), 274-6.doi: 10.4111/kju.2013.54.4.274. Epub 2013 Apr 16. | Lew, S., Siegal, A., &Aronheim, M. (1988).Renal cell carcinoma with malakoplakia.*EurUrol*, 14(5), 426-8. | McClure, J.(1980). Malakoplakia of the testis and its relationship to granulomatous orchitis.*J ClinPathol*, 33(7), 670-78. | Michaelis, L., &Gutmann, C. (1902).UbreEinschlüsse in Blasentumore.*Klin Med*,47, 208. | Siders, B., Win, T., &Abaza, R.J. (2005).Sonographic evaluation of epididymalmalacoplakia.*J Ultrasound Med*, 24(7),1003-5. |