Case Report

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Urethral Cancer Presenting with Scrotal Abscess Formation

A Differential Diagnosis of Acute Epididymitis

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Key Words

Urethra
Planocellular carcinoma
Scrotal abscess

Abstract

Primary urethral cancer in male subjects is briefly described, and a case is presented in which the formation of a scrotal abscess was the unusual presenting symptom.

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Primary urethral carcinoma (PUC) is a rare condition accounting for less than 0.5% of all urologic malignancies. It occurs most frequently in the elderly men in the 6th and 7th decades. During the period 1953–1987, 64 cases of PUC were reported in Denmark (population: 5 million), which corresponds to 1.5 cases per year [The Danish Cancer Registry, 1987].

We describe a case in which the uncommon presenting signs of a planocellular carcinoma in the bulbar urethra posed differential diagnostic difficulties.

Case Report

A 73-year-old man was hospitalized for acute epididymitis. The patient presented with painful left scrotal swelling of 14 days' duration in addition to dysuria and pollakiuria. The temperature was normal. He denied any previous urinary problems apart from a 1-year history of nocturia xl and delay in starting micturition. A tender mass, the size of an egg, was the only complaint at the time of admission. Physical examination revealed a 10-cm firm mass in the left scrotum. The right testis and the prostate were normal. Leuko-cytosis was present. The sedimentation rate was 80 mm/h. Culture examination was negative. The initial diagnosis was acute epididymitis, and the patient was commenced on antibiotics (ampicillin 1 g 4 times a day).

One week later a perforation spontaneously developed in the scrotum with subsequent discharge of brownish pus. Incision of the scrotum revealed a 50-ml abscess cavity containing brownish pus. The testis and epididymis were inflamed and orchiectomy was performed. Histologic examination disclosed a nonspecific chronic inflammation. Cultures from the abscess cavity showed gram-negative rod.

After 6-week wound treatment of the abscess cavity, a little fistula was still left distally on the scrotum. At the same time the patient complained of increasing obstructive symptoms, but the uroflow was normal. Urethrography showed a fistula extending from the skin of the scrotum into the bulbar urethra.

Urethrocytoscopy showed stricture development located in the bulbar urethra. Internal urethrotomy was performed revealing a 1.5-cm abscess cavity near the colliculus. The prostatic

part of the urethra and the mucosa of the bladder were normal. Complete removal of the fistulous tissue was accomplished. A skin excision was carried out through the perineum to the periurethral tissues beneath the prostate, leaving an indwelling catheter.

The histology of the fistulous tissue and the urethral biopsies confirmed the diagnosis of planocellular carcinoma.

Eleven weeks following onset of symptoms, blood samples showed raised level of alkali phosphatase. Bone scans revealed hot spots, consistent with bone metastases. Unremitting discomforts led to further excision of a fistula, pars bulbosa and pars membranacea urethra with insertion of a urethral catheter through the perineum. The histology was planocellular carcinoma. The patient died in a cachectic state 11 months following presentation of symptoms. Autopsy revealed as expected locally invasive planocellular carcinoma with regional and distant metastases.

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Discussion

Planocellular carcinoma of the urethra is described as the most common tumor type of PUC among male subjects [Olsen, 1985]. According to the publication by the Danish Cancer Registry on the incidence of cancer for the period 1978–1987, the planocellular carcinomas surprisingly represent only approximately 10% of all malignancies of the urethra. The striking difference between these two statements may be attributed to the fact that the criteria for this rare tumor type have not been uniformly stated by the pathologists, or to the fact that it is not always evident whether it is a planocellular carcinoma or an urothelial carcinoma.

There are no characteristic presenting symptoms; the patient most frequently presents with a variable stream, pollakiuria, and dysuria simulating urethral stricture [Levine, 1980]. In rare instances, the symptomatology of proximal PUC may be predominated by periurethral abscess or fistulous formation. An abscess appearing in the scrotum, without any previous disturbances in micturition, is a most unusual presenting symptom of PUC, and may be confused clinically with acute epididymitis. As illustrated in this case report, urethroscopy with biopsy is essential for proper diagnosis.

Owing to delay in presentation, primary urethral cancer arising in the proximal urethra often infiltrates into its surroundings with subsequent distant metastases at the time of diagnosis. Therefore, carcinoma localized to the proximal urethra has a very poor prognosis, the 5-year survival rate being less than 10% [Levine, 1980]. The treatment for localized tumors is surgical, perhaps combined with radiation therapy, depending on tissue type [Bolduan and Farah, 1981; Hopkins et al, 1984; Heysek et al., 1985]. Penectomy, cystoprostatectomy, and pelvic lymph node dissection are essential for radical treatment of patients with tumors arising in the proximal urethra [Levine, 1980; Anderson and McAninch, 1980].

Patients presenting with an unusual progression of scrotal or perineal infection should always be suspected of having urethral cancer despite the absence of symptoms from the urinary system. We recommend urethroscopy with biopsy.

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