

A rare case of squamous cell carcinoma of the scrotum with infiltration into penis

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Abstract

Squamous cell carcinoma of the scrotum is a tumour that is of interest for clinical and historical reasons. This is a rare case of carcinoma of scrotum invading the penis. We describe, a case of scrotal and penile squamous cell carcinoma. An old case of balanitis xerotica obliterans for which he had undergone Johansson's urethroplasty earlier.

Keywords: cancer of the scrotum, occupational cancer, lymph nodes

INTRODUCTION

Squamous cell carcinoma of the scrotum is a tumour that is of interest for clinical and historical Reasons. It was the first cancer linked to occupational exposure when, in 1775, Perivall Pott described it in chimney sweeps in England [1]. Occupations that have been associated with an increased incidence of scrotal carcinoma include paraffin or shale oil workers, mule (cotton) spinners, machine operators in engineering, petroleum wax pressman, workers in the screw-making industry, and automatic lathe operators. SCC of scrotum tends to remain localized to the scrotal wall, very occasionally involves the adjacent perineal skin but rarely involves the scrotal contents or penis [2]. This is a rare case of carcinoma of scrotum invading the penis.

CASE REPORT

A 60 year old male presented to us with complaints of ulcer over the scrotum since last 6 months. It was painless with blood stained discharge. He was an old case of balanitis xerotica obliterans for which he had undergone Johansson's urethroplasty in 2004. He had also undergone cystoscopy & urethral dilatation in 2009. He was a diabetic on oral hypoglycaemics. There were 2 ulcers each measuring 4x3cms in the left hemiscrotum. The margins were raised & everted. Clinically bilateral testis, spermatic chord & penis were not involved. There was no inguinal lymph node involvement. All the blood investigations were within normal limits. Biopsy from the edge of the ulcer revealed keratinising squamous cell carcinoma. CT scan of the abdomen & pelvis was reported as thickening of the scrotal wall with infiltration into base of corpora cavernosa, no involvement of testis & spermatic chord. Lymphadenopathy & distant metastasis was absent. Written consent for the surgery was taken. The surgery performed was scrotoectomy, total penectomy, left orchidectomy & perineal urethrostomy. Inguinal lymph node dissection was not performed. Post operatively the patient recovery was uneventful.

Histopathology report revealed keratinizing squamous cell carcinoma of scrotum with infiltration into penis. The margins were free from cancer. The patient did not receive any adjuvant therapy. The patient was followed up every third month for the first year. Last seen 18 months after surgery he had not developed any local recurrence, inguinal lymphadenopathy or visceral metastasis.

DISCUSSION

Squamous cell carcinoma is the most common malignant tumour of the scrotum [3]. Squamous cell carcinoma of the scrotum frequently present as a solitary wart or nodule on the scrotum. The lesion rarely involves the scrotal contents or penis. In the series of 141 cases, Southan and Wilson found testicular involvement in 6 and penile in only 3 cases [4].

The established treatment for squamous cell carcinoma of the scrotum is wide excision with a 2-3 cm margin. Primary scrotal closure is usually possible, but may be a challenge after large tumour resection. Various methods are described to cover a healthy testis when primary closure is not feasible. These include immediate use of local thigh flaps, myocutaneous gracilis or adductor minimus myocutaneous flaps, and heterologous fascia grafts. Sometimes orchidectomy needs to be done to achieve closure [5]. Adjunctive treatment like radiotherapy or chemotherapy or both have not proved useful [1].

Management of lymph nodes

Briefly, the optimal management of patients with squamous cell carcinoma of the scrotum with clinically negative inguinal node (like in this case) is controversial and involves a decision as to whether a prophylactic or therapeutic node dissection should be performed. Some authors propose bilateral radical groin dissection to remove micrometastasis [6]. Dean emphasized that only 50% of patients with inguinal adenopathy actually had metastases, suggesting that routine dissection would be useful only in half of the patients with inguinal adenopathy [7]. Ray and Whitmore based on their experience, advocated patient follow-up at 2-3 month intervals after excision of primary lesion and to perform an ipsilateral ilioinguinal dissection if there is clinical evidence of metastasis proved by biopsy [2]. This protocol was followed in our case. Usg has been described for staging the local infiltration in SCC of scrotum, but in our case we used the CT scan to determine the infiltration into penis.

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Prognosis

An important prognostic factor is the ability to completely

excise the tumour at the time of initial surgery. The five year survival rate in patients without lymph node involvement is as high as 70% & falls to 25% if lymph nodes are involved.



Fig 1. Operated specimen of total penectomy, scrotectomy & left orchidectomy showing 1. Balanitis Xerotica obliterans changes of the penis. 2 The tube entering the urethral opening on the ventral surface of penis (old operated case of Johansson's urethroplasty). 3. 2 Malignant ulcers in left hemiscrotum with characteristic raised & everted edges.



Fig 2. Photograph showing closure after the surgery. Foley's catheter is seen coming out of the perineal urethrostomy. Drain is seen.

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