Abstract:
Carcinoma in the scrotum is a very rare occurrence in these days since the occupation related to its high incidence in earlier days were withdrawn. This disease has a very poor survival rate because of the late presentation, by the time metastasis would have occurred. Forty two years old male patient presented to our surgical OPD with ulceroproliferative lesion on right side of the scrotum with history of right orchidectomy three months back. He was also having urethrocutaneous fistula on the ventral surface of the penis. Total Scrotectomy and Emasculation with two centimetre margin clearance all around with primary closure and permanent Supra pubic cystostomy and bladder drainage was performed. Post operatively patient was advised adjuvant chemotherapy and radiotherapy. Squamous cell carcinoma of the scrotum is the commonest histological variety of the malignancies of the scrotum. Surgical excision is the treatment of choice. Overall this malignancy has a poor survival rate.

Keyword: carcinoma, scrotum, squamous, scrotectomy, emasculation.

Carcinoma Scrotum - A Rare Case Report

Introduction
In 1775, Sir Percival Pott first described the soot related Carcinoma of Scrotum and Penis in chimney sweepers. Scrotal tumours can also be classified under tumours of the skin but because of the etiological relationships between the occupational exposure and the tumours of scrotum. Lack of this relationship in other skin tumours makes tumours of scrotum, a different entity. Carcinoma scrotum is a rare entity these days. Ours is a case of carcinoma scrotum presenting in middle aged person with no specific risk factor and interesting histopathological report.

Case Presentation
A 42 years old male patient, who is a farmer by occupation presented with complaints of swelling and ulceration of the right side of the scrotum.
associated with pain for three months. Patient also complained of purulent foul smelling discharge from the ulcer for the past one month and not passing urine via naturalis the past one week. No history suggestive of hematuria and he had loss of appetite and significant loss of weight. Three months back patient had undergone circumcision and right orchidectomy in a private hospital. The details of the surgery and the histopathology report were not available. He was a known hypertensive and diabetic and not on treatment for the past two years. General examination of the patient was good. Local examination of the external genitalia revealed circumcised penis with its ventral surface adherent to the scrotal mass. External urethral meatus was not seen. On the right side of the scrotum an irregular mass of size 9*8cm (Fig 1) which was covered with unhealthy granulation tissue with foul smelling discharge was seen. Skin over the right hemiscrotum was lost. The swelling was firm in consistency and bleeds on touch. Left hemiscrotum and testis were normal. Urethrocutaneous fistula over the ventral surface of the penis near the root of the penis with

Nephrologist, renal failure was corrected with appropriate fluid management and antibiotics. Biopsy from the mass shows Squamous cell carcinoma which was Moderately differentiated. Discussed with Oncologist regarding the management and they have advised Total Scrotectomy and Emasculation along with flap cover.

Surgical Management

Suprapubic Cystostomy

Prior to the definitive procedure, because of his presentation with Urethrocutaneous fistula Suprapubic Cystostomy and catheterisation was performed under local anaesthesia after obtaining informed consent. Total Scrotectomy with Emasculation

Under General Anaesthesia with patient in lithotomy position, Left low orchidectomy was performed through scrotal approach followed by total Penile amputation (Fig 2). Urethra was divided at the level of membranous urethra and transfixed. Tumour was excised all around with two cm margin clearance (Fig 4). Partial primary closure (Fig 3) was achieved with minimal raw area at the inferior margin of the incision. The immediate post operative period was uneventful. Post operatively, the patient developed wound infection and minimal necrosis. It was managed conservatively with appropriate antibiotics and debridement.

Fig.1 CARCINOMA RIGHT HEMISCROTUM

Basic investigations and liver function tests were normal. VDRL, HIV 1 and HIV 2 tests were negative. Ultrasound abdomen and CT abdomen revealed normal study. There were no evidence suggestive of metastasis. Renal function test showed features of Acute renal failure. With the opinion of
Fig 2. RAW AREA AFTER EMASCULATION
Fig 3. AFTER PRIMARY CLOSURE
raw area in the operated site. On discharge
patient was advised to review for adjuvant
chemoradiation. We had lost the follow up of
this patient subsequently.

<table>
<thead>
<tr>
<th>STAGING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage A1 - Localised to the scrotal wall</td>
</tr>
<tr>
<td>Stage A2 - Locally extensive tumour invading adjacent structures</td>
</tr>
<tr>
<td>(testis, cord, penis, pubis and perineum)</td>
</tr>
<tr>
<td>Stage B - Metastatic disease involving only the inguinal</td>
</tr>
<tr>
<td>Lymphnodes.</td>
</tr>
<tr>
<td>Stage C - Metastatic disease involving pelvic nodes with evidence</td>
</tr>
<tr>
<td>of distant spread.</td>
</tr>
<tr>
<td>Stage D - Metastatic disease beyond pelvic lymphnodes involving</td>
</tr>
<tr>
<td>Distant organs.[1,8]</td>
</tr>
</tbody>
</table>

In our case, the stage of the disease was Stage A2 – locally extensive tumour involving

Fig 4. RESECTED SPECIMEN Fig 5. HPE - SARCOMATOID CARCINOMA

DISCUSSION

AETIOLOGY

Carcinoma of scrotum is common in white population. It has become a rare malignancy in these days. Sir Percival Pott[4,6] described the soot exposure, one of the environmental causes for development of scrotal cancers. Several non specific aetiological factors were described later such as poor hygiene and chronic irritation in the region of external genitalia.

Burmer et al described the association of Human Papilloma virus and scrotal tumours. HPV, a subgroup belonging to Papova virus have multiple strains pertaining to the development of benign and malignant tumours of scrotum and penis. HPV 18 is associated with malignant scrotal tumours and HPV 16, 18, 6/11 are associated with areas of dysplasia.[2]

Therapeutic use of PUVA and long wave Ultraviolet radiation are the newly described potential aetiological factors in scrotal and penile malignancies.

Development of carcinoma in the scars of Fournier’s gangrene is similar to that of development of squamous cell carcinoma in Marjolins ulcer[4]. Usually the latency period in the later group is 50 years, but the former one is of aggressive type. Comparing to the tumours of the other skin areas, it is 5 – 15% more common in scrotum and penis. In this case, patient was a farmer. No occupational risk pertaining to the etiology could be made out.

Carcinoma scrotum usually presents as a solitary lesion in the anterior and lateral aspect of scrotum. It is usually reported late to the treating surgeon because of the ignorance of the patient and the embarrassment to seek medical attention. It usually affect the males of fifth to sixth decade of life. The lesion usually will be a quiescent one and when it gets secondarily infected, brings the patient for medical attention. In advanced lesions patients will present with invasion of the adjacent structures. In 40 – 50% of the patients, along with the tumour they
will present with ipsilateral inguinal lymphadenopathy.

Malignant lesions of the scrotum include Basal cell carcinoma, Malignant melanoma, Extra mammary paget’s disease, Erythroplasia of querat, Sarcomas and metastatic lesions. The clinical history and examination findings of many scrotal pathologies are similar, so to come at a specific diagnosis is a difficult process. Scrotal ultrasound is the imaging investigation of choice in scrotal diseases. In the recent days, MRI is the emerging investigation of choice in the diagnosis of scrotal diseases.

Stage A1 - Localised to the scrotal wall
Stage A2 - Locally extensive tumour invading adjacent structures (testis, cord, penis, pubis and perineum) Stage B - Metastatic disease involving only the inguinal Lymphnodes. Stage C - Metastatic disease involving pelvic nodes with evidence of distant spread. Stage D - Metastatic disease beyond pelvic lymphnodes involving Distant organs.[1,8] In our case, the stage of the disease was Stage A2 – locally extensive tumour involving penis and testis.

MODES OF TREATMENT

Surgical excision is the treatment of choice in primary squamous cell carcinoma. The excised margin should give a 2 cm clearance from the tumour margin with resection of skin and underlying dartos muscle. For early lesions, laser treatment can be employed for better cosmetic result. For small and medium sized tumours, following excision the scrotum can be reconstructed without difficulty. Sentinel node biopsy in suspected lymph node metastasis can be used as an investigative modality to evaluate the extent of lymphatic spread. Inguinal and ilioinguinal lymphnode block dissection is also recommended in case of lymphnode metastasis. In case of large tumours, large defects following excision will not be amenable for primary closure. Alternative methods for reconstruction are placing the testis in the opposite hemiscrotum serving two purposes to close the defect and coverage of testis. Placing the testis in subcutaneous flap created in the thigh and using a split skin graft to cover the testis are the other options. Neo adjuvant chemoradiation, in cases of large tumours to downstage the disease for good oncological clearance like methotrexate, cisplatin and bleomycin.[3,4,6,8]

CONCLUSION

In our case, since the patient was a farmer, who belonged to a low socioeconomic group no specific etiological factor can be considered, but poor hygiene and irritation can be considered. References were limited to support this data. Our case needs special mention because it was a locally aggressive tumour without lymphnode metastasis. May be because of the sarcomatoid component of this tumor in our case the lymphatic spread was not present in this locally extensive disease. Because of its rarity primary malignancy of the scrotum needs extensive research regarding its changing etiological factors and its management.

REFERENCE


5 Chintamani et al, Squamous cell carcinoma developing in the scar of fournier’s gangrene – a case report. BMC Cancer 2004; 4:16


