Case Report

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Chemotherapy For Bulky and Fixed Nodal Metastasis in Carcinoma Penis: A Case Report and Review of Literature

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Abstract

Penile cancer is an aggressive disease and in patients with advanced or metastatic disease, it is virtually incurable. While this squamous cell cancer responds to chemotherapy, successful treatment of lymphatic metastases can only be achieved with aggressive surgical treatment in combination with chemotherapy. Since penile carcinoma is relatively rare, there is a paucity of clinical data as well as literature on the chemotherapeutic management of this aggressive disease. Recent advances have included the establishment of less toxic regimens incorporating taxanes, while cisplatinum remains central to all regimens. Multi-institutional studies would advance the information regarding multimodal care for patients with penile cancer. We report a case of a 76 year old male presenting with an advanced loco-regional penile cancer.

Keywords: Biologic agents; chemotherapy; combined modality therapy; penile cancer.

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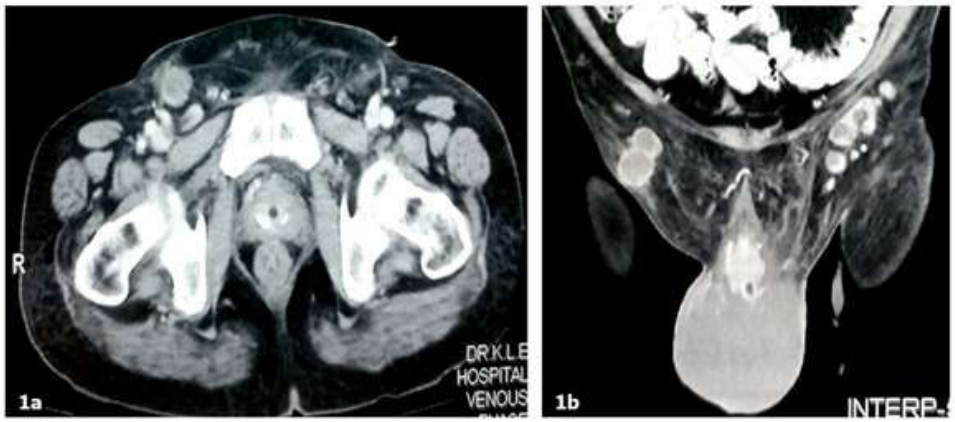
Introduction

Penile cancer (PC) is relatively a rare disease in most of the developed countries, however its incidence is much higher in the less developed countries including India.[1] PC is a highly aggressive malignancy characterized by early locoregional spread with subsequent potential for distant dissemination. Successful curative local treatment can usually be achieved only at an early stage. The treatment of advanced penile carcinoma with regional and/or systemic metastases remains a grave problem in uro-oncology. In regional lymphatic metastatic disease combined chemotherapy with aggressive surgical treatment may be effective but the rate of local recurrence with further progression is high.[1] In systemic disease chemotherapy remains the only option. We report a case of penile cancer in a 76 year old man, who presented with bulky and fixed nodes and was put on chemotherapy.

Case Report

A 76 year old male presented to the uro-oncological services of the hospital with complaints of a hard growth at the distal portion of the penis. On examination it was not possible to retract the prepuce. The underlying glans and distal shaft of the penis was hard to palpate. The patient was admitted and under local anesthesia, a dorsal slit was performed and a wedge biopsy was taken from the glans and sent for histo-pathological examination (HPR). The microscopic examination of the lesion confirmed it as kerainizing squamous cell carcinoma (SCC), Grade II, moderately differentiated. Inguinal examination confirmed

bilateral fixed and bulky adenopathy. The clinical stage of the disease was T3N3M0. Chest X-ray, bone scan showed no evidence of metastases elsewhere. Computed tomography (CT) of the inguinal region revealed bilateral enlarged necrotic superficial inguinal and left distal external iliac lymph nodes (Figs. 1a & 1b). There was extensive scrotal and penile wall edema.



Figs. 1a & 1b: CT scan of the pelvis shows huge inguinal lymph nodes on both the sides with necrotic centre.

In view of the stage of the disease, it was decided to perform total penectomy followed by chemotherapy. In case the lymph-node disease responded then to perform postchemotherapy surgical excision of the lymph nodes. Total penectomy with bilateral orchidectomy with perineal urethrostomy was performed under regional anesthesia (Figs. 2a, 2b & 2c). Within a weeks' time the patient was initiated on Cisplatinum based multidrug chemotherapy.

Fig. 2a: Reveals carcinoma of the penis with diffused edema of the penis and scrotom.

Fig. 2b: bilateral orchidectomy performed with total penectomy.

Fig. 2c: perineal Urethrostomy.

Discussion

The vast majority of malignancies of the penis are squamous cell carcinomas (SCCs), but other histologic types are also observed in ~5% of cases, such as melanomas, basal cell carcinomas and sarcomas.[2] In patients with multiple, fixed or bulky inguinal lymph nodes (LNs) (≥4 cm), multimodality therapy including primary chemotherapy followed by surgery and node resection is the preferred choice of treatment. Several small retrospective studies consisting of 5–20 patients have examined the use of bleomycin–vincristine–methotrexate (BVM) and bleomycin–methotrexate–cisplatin as a form of peri-operative chemotherapy.[3–5] Similarly a recent prospective trial investigated four cycles of neoadjuvant ifosfamide, paclitaxel, cisplatin (ITP) and demonstrated the feasibility and activity of this regimen in 30 men, of whom 15 (50.0%) had an objective response and 22 (73.3%)

underwent surgery.[3,4,6] Three (10%) patients exhibited a pathologic complete response (pCR), which was a marginally substantial predictor of improved survival. Serious adverse events related to chemotherapy were infrequent, with grade 3 infection being the most common severe toxicity occurring in ~16% of patients. Nine (30.0%) patients remained alive and free of recurrence after a median follow-up of 34 months. The estimated median time-to-progression (TTP) was 8.1 months, and median OS was 17.1 months.

Haas and associates[7] employed combination cisplatin, methotrexate, and bleomycin in 45 patients with locally advanced or metastatic penile cancer accrued from 31 different institutions. There were five complete and eight partial responses among 40 evaluable patients (32.5% response rate). The median duration of response was 16 weeks with an overall survival of 28 weeks. Theodore and colleagues[8] reported the results of a European Organisation for Research and Treatment of Cancer (EORTC) phase 2 study in which 28 patients with locally advanced or metastatic disease (T3, T4, N1 to N3, or M1) received combination cisplatin and irinotecan. Patients were treated in either the neoadjuvant setting for four cycles before surgery (T3, N1 or N2) or up to eight cycles (T4, N3, M1 disease). Toxicity was acceptable, with no treatment-related deaths. Eight responses were noted (two complete, six partial) for an objective response rate of 30.8% (80% CI 18.8% to 45%).

Bermejo *et al*.[3] described the surgical considerations and complications among 10 patients who had either a response or stable disease after combination chemotherapy. All these patients exhibited bulky inguinal or pelvic metastases. In addition to ilio-inguinal lymph node dissection (IILND), resection of the inguinal ligament, the inferior aspect of the rectus abdominis or external and internal oblique muscles, the spermatic cord and ipsilateral testicle, and segments of the femoral artery and vein (with subsequent patch or bypass grafting) was performed to achieve negative margins. Among 5 patients exhibiting an objective response, 3 were alive and disease free at 48, 50, and 73 months. Two other patients died (1 of disease at 30 months, another of unknown causes at 21 months). Among the 5 remaining patients with stable disease, 3 were dead of disease within 7 months and 1 patient treated with bleomycin died of "failure to thrive" at 8 months. However, another patient treated with paclitaxel and carboplatin who achieved only stable disease was alive and disease free at 84 months. These data appear to reinforce the concept that response to systemic chemotherapy before surgery enhances the chance for long-term survival among those undergoing surgical resection.

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