Multiple Cutaneous Metastasis from Carcinoma of the Penis—Report of Two Cases

Joydeep Purkayastha

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Introduction

Carcinoma of the penis is more prevalent in developing countries like India where it constitutes 1.8 % of all cases of cancer and accounts for 0.5 % mortality due to all cancers [1]. Cancer of the penis commonly metastasizes to regional lymph nodes in the inguinal and iliac region. Distant metastasis is uncommon because vascular dissemination seldom occurs [2]. Clinically detectable distant metastasis has been described in the lung, bone, liver and brain [2]. Cutaneous metastasis from penile carcinoma is extremely rare. There is no protocol for treatment of metastatic carcinoma penis due to rarity of the disease. However, systemic chemotherapy is the preferred line of treatment.

Case Report

Case No. 1

A 40-year-old follow up patient of carcinoma penis presented with multiple subcutaneous firm, mobile nodules over bilateral arms, chest, abdominal wall and back (Fig. 1). He had undergone radical surgery including partial amputation of the penis with bilateral ilio-inguinal lymph node dissection along with adjuvant radiation therapy

6 months before developing the skin nodules. Fine needle aspiration cytology (FNAC) from the subcutaneous nodules showed features of metastatic squamous cell carcinoma consistent with primary in the penis. There was no loco-regional recurrence in the amputated stump of penis or the ilio-inguinal lymph nodes. Chest x-ray, ultrasonography of abdomen and bone scan were normal.

The patient was administered combination chemotherapy using cisplatin 75 mg/m² infused intravenously on day 1, methotrexate 25 mg/m² intravenous bolus on days 1 and 8, and bleomycin 10 unit/m² intravenous bolus on days 1 and 8 with a cycle length of 21 days for a total of 4 cycles. The subcutaneous lesions regressed completely and the patient did

Fig. 1 Multiple cutaneous metastasis from carcinoma penis

J. Purkayastha
Department of Surgical Oncology, Dr. B. Borooah Cancer
Institute, Gopinath Nagar, Guwahati 781016, Assam, India

J. Purkayastha (✉)
Flat No H-2, Ashirwad Enclave, ASEB Road,
Behind Hotel Shiva, Bhangagarh,
Guwahati 781007, Assam, India
e-mail: drjoydeep@indiatimes.com

J. Purkayastha
e-mail: p_joydeep@hotmail.com

not experience any significant toxicity. The patient is doing well at 6 months following completion of chemotherapy.

Case No. 2

A 35 year old patient presented with multiple skin nodules over bilateral thighs (Fig. 2). He had undergone partial amputation of penis with bilateral groin dissection followed by adjuvant radiation therapy 9 months before developing the skin lesions. FNAC from the skin nodules detected metastatic squamous cell carcinoma. There was no loco-regional recurrence or metastasis to any other distant site. He was administered combination chemotherapy using the same regimen for 4 cycles. He had a partial response and is kept under follow up.

Discussion

The incidence of carcinoma penis varies widely in different parts of the world. It is a rare malignancy in developed countries. In the United States it accounts for less than 1 % of all male cancers [3]. However, in developing countries it is a significant health problem because of poor hygiene and due to circumcision not being commonly practiced [2].

Metastasis from carcinoma penis commonly occurs to the regional lymph nodes in the inguinal and iliac regions. About 50 % patients have regional lymph nodal metastasis at time of presentation [2]. Distant metastasis via the

hematogenous route is very rare, accounting for 1–3 % cases. The Buck's fascia acts as a protective barrier against vascular invasion [4].

Distant spread usually occurs to lung, bone, liver and brain [2]. Metastasis to the skin from carcinoma of the penis is extremely rare. A review of the literature revealed only one previous report by Khandpur et al. who described cutaneous metastasis developing in a 65-year-old patient of carcinoma penis [5].

In our patients cutaneous metastasis developed 6–9 months after the loco-regional disease was treated and controlled, an event that has not been described previously. In the previous report by Khandpur et al., the primary tumour in the penis, the regional lymph node metastasis and the skin lesions were all present simultaneously at the time of presentation [5].

Treatment of metastatic carcinoma of the penis has not yet been established because of the rarity of this disease and paucity of clinical trials. However, chemotherapy remains the only option [6]. Multi-agent cisplatin-based combination chemotherapy regimens have shown significant response [6, 7]. Dexeus et al. used combination chemotherapy with methotrexate, bleomycin and cisplatin in 12 patients with advanced and metastatic carcinoma of the penis and had a response rate of 72 % and median response duration of 6 months [8]. Khandpur et al. also used similar chemotherapy regimen for 3 cycles and had complete response of the metastatic skin lesions along with significant decrease of the lesions in the penis and ilio-inguinal nodes [5]. More recently, newer chemotherapeutic regimes were tried combining paclitaxel with cisplatin and 5FU which showed higher activity with lesser toxicity [9]. Some centers have tried targeted therapy using cetuximab or panitumumab either alone or in combination with chemotherapy and have reported relevant response [6, 7]. However, due to paucity of data, guidelines with evidence based recommendations for metastatic penile cancer is still lacking.

We conclude that, systemic metastasis from squamous cell carcinoma of the penis is very rare. Any patient with penile carcinoma developing cutaneous lesions should be evaluated to exclude distant spread. Such patient may be treated with combination chemotherapy under study protocols to further establish treatment recommendations and improve outcome.

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