CASE REPORT

SKIN AND SKELETAL MUSCLE METASTASIS OF ADENOCARCINOMA OF RECTUM: AN UNUSUAL MANIFESTATION

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ABSTRACT

The frequency of rectal cancer in Pakistan appears to be similar to those in other Asian countries, but much lower than in the developed countries. Most rectal cancers present at advanced stages, and are not amenable to upfront curative surgery. Adenocarcinoma of rectum most frequently metastasizes to the liver, lungs and skin. Skeletal muscle metastasis is a rare presentation. Herein, a rare case of skin and gluteus maximus muscle metastases of adenocarcinoma rectum in a 17 years old male is reported.

Key words *Adenocarcinoma rectum, Metastasis- adenocarcinoma rectum.*

INTRODUCTION:

The true incidence of rectal cancer in Pakistan is not known but reported data shows similarity with other Asian and Middle East countries though it is much lower than reported from the developed countries. A 41% rise in incidence was noted in Pakistani males during the period of late 90's, which may indicate a higher risk in males in the future. Unfortunately most rectal cancers present at metastatic stages in our region, and are not amenable to upfront curative surgery.[2] Metastasis from rectal adenocarcinoma can occur by lymphatic, haematogenous, direct or peritoneal spread. The most common sites of colorectal metastasis are the liver and lung.[3] Involvement of the skin and skeletal muscles are quite rare and occur in 4% of all patients with diagnosis of rectal cancer.[4] The prognosis in such patients is usually very dismal.[5] We report a very rare case of metastatic spread to rare sites in a patient with adenocarcinoma.

CASE REPORT:

A 17 years old male underwent abdominoperineal resection for a low lying rectal cancer 6 cm from the anal verge. His preoperative radiological staging was T3N0M0. The postoperative histopathological findings were poorly differentiated adenocarcinoma with perineural invasion, lymphovascular involvement and positive circumferential margins. The proximal and distal margins were negative. Two out of 15 dissected lymph nodes were positive for malignancy (pT3N1M0). After the surgery, he underwent postoperative chemoradiation {50.4 Grays (Gy); 1.8 Gy/faction/day; 5 fractions per week with 5-flourouracil as continuous venous infusion} from October to December 2008.

Eight months later he presented in oncology clinic with two months history of multiple painless skin nodules over the face on right side, abdomen and perineum. He also complained of left buttock pain and one episode of gross haematuria. On general physical examination, patient was emaciated and anaemic. Multiple small erythematous skin nodules of various sizes were noted on face, chest, abdomen and perineum. Largest one was on the left buttock of size 2 cm x 2 cm which was hard in consistency like other nodules. On further examination, diffuse tender swelling was noticed in left buttock of size 10 x 18 cm (Fig-I).

Computed tomography (CT) revealed a diffuse mass in left gluteal muscles with loss of subcutaneous fat planes and skin nodules (Fig-II). Additional findings were presacral mass which involved the seminal vesicles and urinary bladder. However liver and lungs were negative for metastatic disease. A provisional diagnosis of recurrent rectal adenocarcinoma was made. The excisional biopsies of skin nodules and incisional biopsies of left gluteal muscles were performed. Histopathology was consistent with

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metastatic adenocarcinoma, rectal in origin (Fig-III).

Fig I: Multiple skin nodules over the face, abdomen and perineum.

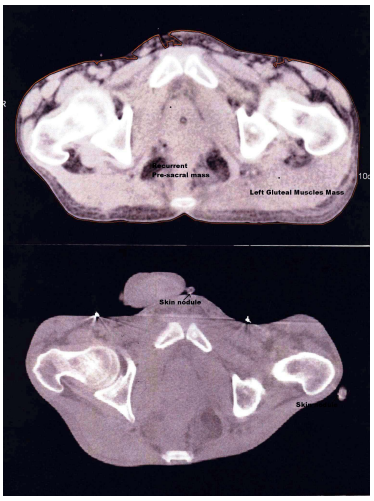

Fig II: CT scan showing skin nodules and left gluteal muscles mass.

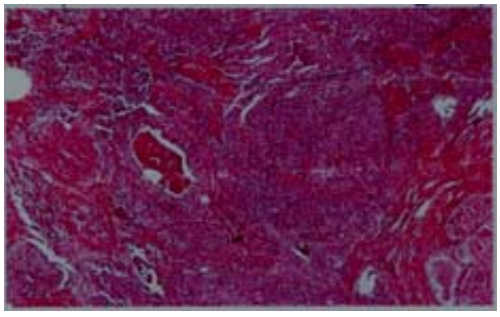

Fig III: Histopathology was consistent with metastatic adenocarcinoma primary rectum

He was given palliative radiotherapy to presacral recurrence and left gluteal muscles metastasis, 30 Gy in ten fractions for pain control. Subsequently palliative chemotherapy was started. Patient lived three months from date of diagnosis of metastatic disease in skin and muscles.

DISCUSSION:

Skin and skeletal muscles metastases arising from adenocarcinoma of rectum are rare with poor survival.[4,5] However our patient presented as isolated skin and skeletal muscle metastases without any liver or lung metastasis. The most frequent region of skin metastasis in colorectal cancer is abdomen, especially in the postoperative abdominoperineal resection scars, occurring in up to 0.6% of all patients. According to the data of one of the largest reviews of colorectal skin metastases, in 3 (3.9%) out of 77 patients they occurred at the site of postoperative scar. [6]

The possible mechanism of metastatic spread of adenocarcinoma of rectum to the skin and skeletal muscles could be by lymphatics, haematogenous route, direct extension of primary disease and by manipulation during surgery.[7] In our patient, perineal skin and gluteal muscle metastases could be due to surgical implantation. Having obtained clear lateral margins at the initial surgery, the metastases were likely to have been secondary to the seeding of exfoliated tumour cells during tumour mobilisation.[8]

Skin and skeletal muscle metastases are commonly thought to be associated with poor average survival because of underlying widespread disease, with an average of 3.3 months after diagnosis; it warrants aggressive surgical resection, radiotherapy and the use of systemic chemotherapy.[9] Our patient also received palliative treatment but he could not survive. Clinicians thus must be aware of this mode of metastasis and perform careful examination for prompt diagnosis which may affect the outcome.

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