

# Isolated Cutaneous Metastasis to Thigh from Cancer Cervix - Fourteen Years after Curative Radiotherapy

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## Abstract

**Background.** Cutaneous metastasis from cancer cervix is rare. An unusual case of isolated cutaneous metastasis to thigh from cancer cervix, appearing fourteen years after successful treatment of local disease with curative radiotherapy is reported. **Case.** A 77-year old lady, presented with a progressive nodule associated with pain in left thigh region, fourteen years after successful treatment of cancer cervix III B with radiotherapy. There was no evidence of disease at any other site. The recurrence was treated with concurrent chemo radiotherapy and interstitial implant with good response. **Conclusion.** To the best of our knowledge, this is the first case of recurrence in the thigh region. Local radiotherapy with chemotherapy appears to be effective management for cutaneous metastasis from cancer cervix.

## INTRODUCTION

Cancer cervix is a common neoplasm. However the incidence of skin metastasis has been reported to range from 0.1-2% [12]. Frequent sites of skin metastasis in decreasing order are - abdominal wall, vulva and anterior chest wall [3]. Multiple sites of distant failure are more common than a solitary skin relapse [24].

Out of the 1864 patients of cancer cervix treated at our centre, this is the first case of skin relapse fourteen years after radiotherapy with no evidence of associated loco-regional or distant failure at any other site.

## CASE REPORT

A 63- year old postmenopausal lady reported to Department of Radiotherapy, at our institute in September 1991 with complaints of bleeding per vagina for past six months. She was diagnosed as a case of squamous cell carcinoma of cervix, FIGO stage III B. She received external radiotherapy to whole pelvis, 50 Gy in 25 fractions by four-field box technique in five weeks followed by two intracavitary radiotherapy insertions of 6 Gy each at weekly intervals. She had a complete response and was on regular follow up with no evidence of disease for thirteen years.

At the age of 77, in June 2005, she presented with complaints of a gradually increasing nodular growth in the left lateral thigh associated with pain for past six months. On examination, there was a hard 3x3 cm<sup>2</sup> subcutaneous nodule

with surrounding 8.5x5.5 cm<sup>2</sup> indurated and hyper pigmented area, not fixed to underlying

muscles or bone in the left lateral thigh (Fig. 1).

Figure 1: Pre-treatment clinical photograph of the nodular skin metastasis in the left thigh

Per speculum and per vaginal examination done were normal. Fine needle aspirate cytology from the nodular growth was positive for malignant cells consistent with previous histology of squamous cell carcinoma. Her complete hemogram, biochemistry profile, chest X-ray, bone scan, liver scan, ultrasound of abdomen and Pap smears were normal. Magnetic resonance imaging of the pelvis and upper thighs showed no evidence of disease in the pelvis and lymph nodes. In the lateral aspect of left thigh, there was a soft tissue lesion of 4x3 cm<sup>2</sup> hypointense on T1W and heterogeneously hyperintense on T2W images with no bony involvement (Fig.2).

Figure 2: Axial T2 weighted fat suppressed image showing isointense to hyperintense mass lesion in the subcutaneous tissue above the muscle plane in left lateral pelvis.

Patient refused to have any surgical intervention for the subcutaneous nodule and was therefore planned for external radiotherapy with concurrent chemotherapy consisting of Cisplatin 35 mg/m<sup>2</sup> and 5-FU 375 mg/m<sup>2</sup> weekly. She received 49.60 Gy in 27 fractions as five fractions per week

by anterior and posterior portals along with five cycles of concurrent weekly chemotherapy. Following external radiotherapy, there was a 5.5x5 cm<sup>2</sup> indurated area with a 2x1cm<sup>2</sup> nodule in the middle. In view of partial response, a two plane interstitial high-dose-rate implant was done to a total dose 18 Gy in 3 fractions given at 6 hourly intervals along with same chemotherapy. On follow up, after five months of completion of treatment, there was an residual indurated area showing signs of postradiation changes while there was significant reduction and flattening of the skin nodule (Fig.3). The patient also had complete pain relief and with no restriction of mobility of her left lower limb.

Figure 3: Clinical photograph of the lesion after 5 months of treatment showing considerable regression of the nodule along with radiation induced depigmentation of the skin.

## DISCUSSION

Distant metastasis from cancer cervix occurs commonly to lung, liver, and bone. Skin metastasis from cancer cervix is an unusual entity. Brady et al [1] in a series of 695 patients reported 1% incidence while in another larger series of 1190 patients, 1.3% incidence of skin metastasis was reported [2]. To the best of our knowledge, about 25 such cases have been reported in literature [25678]. The frequency of sites of skin metastasis in decreasing order is abdominal wall, vulva and anterior chest wall [3]. The case reported here is unusual as the thigh has never been reported as the site of skin metastasis. Although in such cases of metastasis in the thigh, the possible reason could be attributable to a retrograde spread of tumor secondary to lymphatic obstruction [9], but in the present case since there was no evidence of any lymphatic obstruction in the pelvis, the cause of such metastasis could be debatable. One may assume that this could either have resulted from a microscopic metastatic focus (hematogenous) or a possible retrograde spread at the time of her initial presentation.

Cutaneous metastasis usually presents in three main forms- nodule, plaque and inflammatory telangiectasia. Nodule is the most common as seen in the present case also. A higher propensity of skin metastasis in adenocarcinomas than in squamous cell carcinoma of cervix has been reported [2].

Skin metastasis has been reported to develop up to 10 years after initial diagnosis, with an average being less than one year. Mean interval between diagnosis of primary and development of skin metastasis was 16.9 months in the

largest series reported [2], longest interval being 69 months. They are usually associated with preterminal advanced

disease or recurrence at primary with multiple distant metastasis. [9] The case reported here is rare as the skin metastasis developed 170 months after completion of treatment. Another uncommon feature of this case is that the skin metastasis appeared as the only isolated site of distant failure.

The main modality of treatment for patients with cutaneous metastasis from cervical carcinoma has been extirpation followed by radiotherapy [2]. Prognosis for such cases is poor and is considered as a hallmark for preterminal disease; the mean survival being 3 months and survival for more than one year seen in only 20% patients [269]. A good and stable response in this case at 5 months following the treatment, suggests concurrent chemotherapy with both teletherapy and interstitial brachytherapy could be an alternative form of treatment for solitary skin recurrences.

## CORRESPONDENCE TO

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