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CUTANEOUS METASTASIS FROM COLORECTAL CANCER – A CASE REPORT

General Surgery

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ABSTRACT

Cutaneous metastasis from rectal cancer is extremely rare and usually presents several years after diagnosis or resection of the primary tumor. Herein we report a case of a 45 years old male who presented with a history of rapidly progressive swelling in the neck and constipation for the past 2 months. He was evaluated and diagnosed to have rectal Adenocarcinoma with cutaneous, musculoskeletal and extensive lymphnodal metastases. Unfortunately, he did not follow up on treatment due to poor general condition and succumbed to the disease after 2 months. Surgeons should maintain a strong suspicion of cutaneous metastases when patients with rectal cancer have new or evolving skin lesions.

KEYWORDS

Cutaneous Metastasis, Rectal cancer, Adenocarcinoma, Musculoskeletal metastasis, unusual metastasis, colorectal carcinoma.

1. INTRODUCTION

Cutaneous metastases are seen at the time of presentation of the primary tumor in only about 1.3% of the cases. Cutaneous metastases are commonly secondary to malignant melanoma, cancer of lung and breast. The most common metastatic site of colorectal adenocarcinoma is liver and lung. Cutaneous metastases also occur in 4-6.5% of these metastatic cases, occur within first 3 years of follow up and abdominal skin being the most common site–[2,3]. Rectal carcinoma metastases to the skin have no distinctive features and usually present as small subcutaneous or intradermal nodules that measure 1 cm to 2 cm in diameter and tend to coalesce. These nodules are usually asymptomatic, firm, rubbery, and painless[4,5]. Surgical intervention in such cases is not feasible, but systemic chemotherapy and radiotherapy might help in controlling the symptoms. This often indicates poor prognosis and median survival of such patients is reported to be about 3 to 18 months[4].

2. Case Report

A 45 year old male patient presented in February 2017 with a history of rapidly progressive swelling in the neck and constipation since 2 months.

On examination Patient had multiple fungating neck swellings, Multiple palpable cervical lymph nodes in Level I, IV, V and bilateral inguinal nodes, Multiple warty lesions noted in the inner aspect of bilateral thighs and perineum. Digital rectal examination revealed hard mass palpable at 6 cms from the anal verge.

Contrast enhanced CT of the abdomen showed Heterogeneously enhancing short segment with moderate wall thickening of rectum and sigmoid colon with loss of mural stratification. Extensive lymphadenopathy with calcifications in cervical, mediastinal, retroperitoneal, pelvic and inguinal regions. Numerous heterogeneously enhancing intramuscular nodular lesions with calcifications in right trapezius, supraspinatus, psoas, gluteal muscles and muscles of proximal right thigh. Mixed lytic and sclerotic lesions seen in thoracic, lumbar and sacral vertebrae and pubic bone. Pathological fracture of L2 and L5 vertebral body with associated soft tissue component. Multiple small randomly distributed nodules were seen in both the lungs.

Figure 1: Multiple neck swellings on the left side.

Figure 2: Multiple warty lesions in the right groin

Figure 3: CECT Abdomen and Pelvis image showing wall thickening of rectum with loss of mural stratification

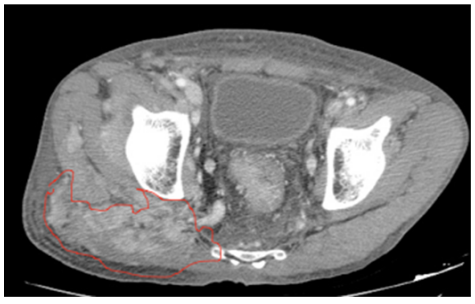

Figure 4: CECT Abdomen and Pelvis image showing heterogeneously enhancing nodular lesions in the psoas and gluteal muscles.

Histopathological examination of the rectal mass showed features suggestive of well differentiated Adenocarcinoma - Rectum. Histopathological examination of the cervical lymph nodes and the

skin lesion revealed tumor cells arranged in glands and papillary pattern with necrosis suggestive of features of metastatic well differentiated Adenocarcinoma

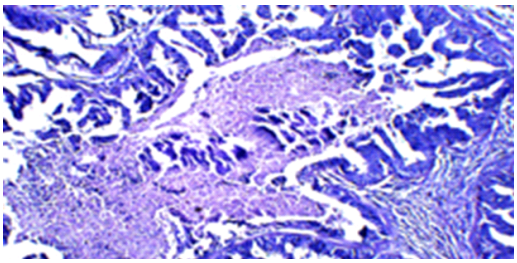

Figure 5: Lymphnode biopsy histopathological examination showing tumor cells arranged in glands and papillary pattern with necrosis

3. DISCUSSION

Metastases to the skin occurs in the course of extensive metastatic malignant disease. They usually represent failure of ongoing therapy or recurrence of a treated malignancy and rarely they may be the first manifestation of asymptomatic, unsuspected occult malignancy. Patterns of cutaneous metastasis vary among men and women. In men, melanoma, lung cancer, and colorectal cancer are the most common sites of cutaneous metastasis. In women, breast cancer, colorectal cancer and melanoma frequently metastasize to the skin[6].

Cutaneous metastases occur in about 3% of colorectal cancer[7]. The abdomen followed by extremities, perineum, head, neck and penis are the most frequent sites of cutaneous metastasis from colorectal cancer. These metastases generally occur simultaneously in liver, peritoneum and lung metastases within the first 2 years after resection of the primary tumor. It is extremely rare for tumors to have musculoskeletal and skin metastases without having lung and liver metastases, as in our case.

In most of the metastasis, the diagnoses were based on the morphologic appearances, histomorphology and immunohistochemistry of the cutaneous lesion, in conjunction with comparison with the primary tumor morphology. When tumors are anaplastic or poorly differentiated, screening immunohistochemical studies [Cytokeratin 7, Cytokeratin 20, Cytokeratin 19, and Caudal-related homeobox gene 2] can be very helpful[8]. Cutaneous metastases can present as ulceration, nodules, bullae, or fibrotic process–[2]. They can manifest as rapidly growing painless dermal or subcutaneous nodules with intact overlying epidermis, or mimic inflammatory dermatosis.

Identification of cutaneous metastasis from an internal malignancy indicates poor prognosis, as it usually reflects widespread disease. Survival after diagnosis of cutaneous metastases ranges from 1 to 34 months[9]. The median survival of cutaneous metastasis patients with colorectal primary tumors was 4.4 months according to a study reported by Schoenlaub et al.[10]. On the other hand, a retrospective study by Lookingbill et al. showed a median survival of 18 months[1]. In our case, the patient died 2 months after radiotherapy.

The treatment of metastatic carcinoma of the skin is limited and lack standardized recommendations. The management of metastatic colorectal cancer has been based on systemic chemotherapy, but surgical resection in selected patients offers the only possibility of long-term survival[11]. A study by Nesseris et al. suggested wide local excision and reconstruction for isolated lesions[9]. Excision may be performed with limited margin in some areas of high cosmetic importance or when therapy is limited to palliation[8]. Systemic chemotherapy can be considered in patients with multiple cutaneous metastases or unresectable lesions. Some other studies mention radiotherapy, polychemotherapy, isolated limb perfusion, interferon alpha injections, cryotherapy, laser ablation, radiofrequency ablation, imiquimod 5% cream, and oncogene-targeted therapy–[12,13]. However, there is no optimal treatment as of yet.

Several mechanisms of cutaneous metastasis have been postulated. Kauffman and Sina suggested that the cutaneous metastasis can be through lymphatics, intravascular dissemination, direct extension of tumor, or surgical implantation[14]. All three mechanisms of metastasis occurred in our patient.

CONCLUSION

This case was unusual in 4 different aspects

1. Patient had cutaneous metastasis on presentation
2. He had muscular involvement with skeletal metastasis
3. Liver, lung and brain (which are common sites for metastasis) were spared
4. The disease had a rapid course with extensive lymph nodal metastasis.

Cutaneous metastasis in colorectal malignancy is a rare but important phenomenon, which should not be ignored, as it indicates advanced disease and poor prognosis. Early detection and recognition of metastatic disease in the skin can dramatically alter the treatment and prognosis. A high index of suspicion is recommended when new skin lesions are found in cancer patients. Patient education plays a major role in early detection and patients should be taught to inspect all areas of their skin several times annually, and to take appropriate action if they find a suspicious lesion.

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