

**Case Report:****Malignant acrospiroma of chest wall****M. Ravikrishna,<sup>1</sup> Pranabandhu Das,<sup>1</sup> N. Rukmangadha,<sup>2</sup> Amitabh Jena,<sup>3</sup> B.V. Subramanian<sup>1</sup>***Departments of <sup>1</sup>Radiation Oncology, <sup>2</sup> Pathology, <sup>3</sup> Surgical Oncology,  
Sri Venkateswara Institute of Medical Sciences, Tirupati***ABSTRACT**

Malignant acrospiroma occurs very rarely and is found more commonly over face and extremities. We present the case of malignant acrospiroma of chest wall located behind the posterior axillary fold in subcutaneous plane without any axillary lymphadenopathy. Wide local excision of the mass was done which recurred in axillary lymph node after two months of default by the patient for adjuvant treatment. Patient had undergone right axillary lymph node dissection. The patient had then undergone adjuvant radiotherapy to the chest wall and right axillary region and is now completely free of disease two years after treatment.

**Key words:** *Acrospiroma, Chest wall*

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**INTRODUCTION**

Malignant acrospiroma, a slow-growing indolent carcinoma of the sweat gland is a rare clinical entity documented scarcely in a small number of case series in english literature. Because of its rarity, clinico-pathological diagnostic consensus, treatment guidelines are not available thereby posing difficulty in management of this rare neoplasm. We present a case of malignant acrospiroma of chest wall in a 51- year-old female patient who was treated successfully.

**CASE REPORT**

A 51-year-old post menopausal woman presented with a painless swelling on her upper back for the last three months. On examination a solitary, mobile, firm nodular swelling of size 5 × 4 × 3 cm was evident on right upper back just behind the posterior axillary fold in sub cutaneous plane with skin over the tumour adherent over 3 × 2 cm area. There was no palpable axillary lymphadenopathy. Fine needle

aspiration cytology (FNAC) done outside showed suspected secondary malignant deposits or skin adnexal neoplasm. Wide local excision with more than one cm margin was accomplished. Post-operative histopathology revealed malignant neoplasm consistent with malignant acrospiroma with a differential diagnosis of secondary carcinomatous deposits with basal resected margin showing tumour cells infiltration. Immunohistochemistry was advised that displayed cytokeratin (CK) moderate to intense cytoplasmic positivity and cytoplasmic weak positivity for carcino-embryonic antigen (CEA). The diagnosis of malignant acrospiroma was confirmed. The patient was advised for adjuvant radiation therapy three weeks following surgical excision, but she defaulted for three months to receive adjuvant treatment. Clinical examination after three months showed surgical scar on right posterior axillary fold and a firm, mobile right axillary lymphadenopathy of (3 × 2 cm). FNAC of the lesion revealed carcinomatous deposits. She was then

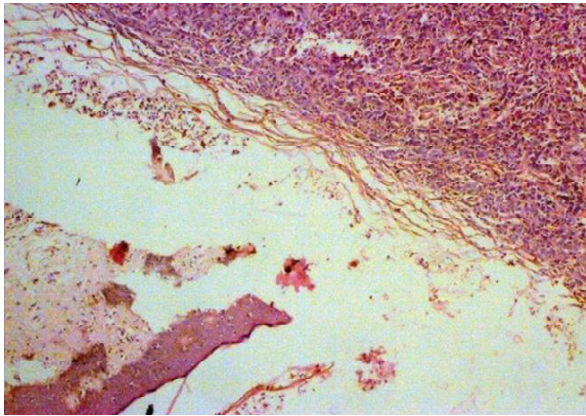
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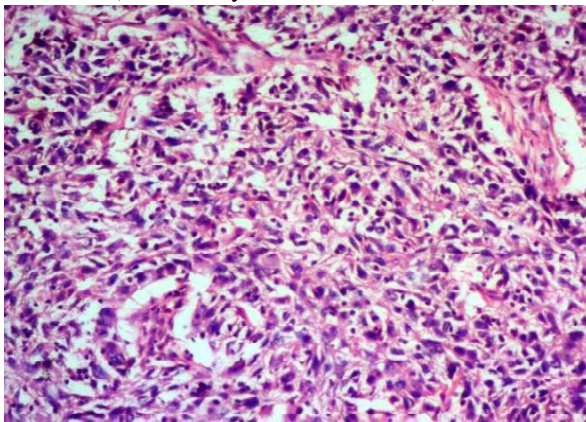


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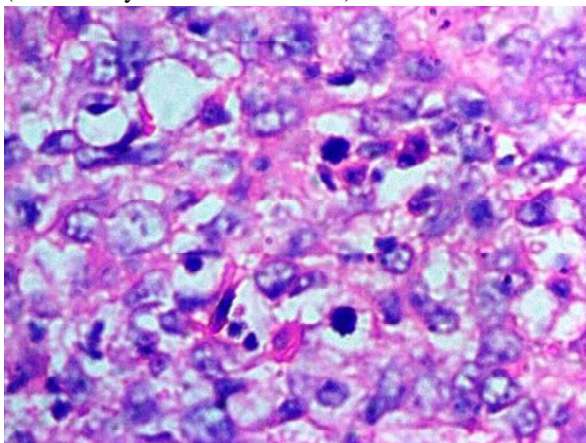
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**Figure 1:** Photomicrograph showing a lesion located in dermis (Haematoxylin and eosin  $\times 40$ )



**Figure 2:** Photomicrograph showing lesion comprising of round, oval, polygonal cells arranged in the form of ill defined glandular and diffuse exhibitions (Haematoxylin and eosin  $\times 100$ )



**Figure 3:** Photomicrograph showing mitotic figures in the tumour cells (Haematoxylin and eosin  $\times 400$ )

undergone excision of axillary lymphnode. Contrast-enhanced computed tomography (CECT) chest showed collection in right axilla and outer aspect of right breast and bilateral lungs parenchyma, bronchovascular markings, hilar and mediastinum appear normal. Routine

laboratory investigations such as haemogram, liver function tests, renal function tests were within normal limits. Ultrasonography of abdomen and pelvis detected no abnormality. She was then treated with radiation therapy 60Gy in 30 fractions over six weeks to the primary tumour sites and axilla. Her treatment was uneventful and now is on regular follow up. She is completely asymptomatic with no evidence of locoregional recurrence 28 months after completion of the above treatment.

## DISCUSSION

Malignant acrospiroma also known as hidradenocarcinoma arises from eccrine sweat glands, is very rare and aggressive tumour comprises of group of ductal carcinoma which are of epidermal, juxtaepidermal and dermal origin.<sup>1,2</sup> It is more common in females predominantly in 5<sup>th</sup> to 7<sup>th</sup> decades of life. Most common site of presentation of acrospiroma is trunk (40%). Other common sites are head (30%) and extremities (15%).<sup>3</sup> It can arise as a new lesion or can develop from its benign counterpart.<sup>4</sup> Malignant acrospiromas are usually of moderate size, largest reported size is 4 cm.<sup>5</sup> It can present as subcutaneous, solitary nodule,<sup>6</sup> or ulceration or erythematous plaque, most often it remains asymptomatic.

Diagnosis is mainly based on clinico-pathological findings, characteristic features of malignant acrospiroma are cellular atypia, frequent mitosis, intervening necrotic areas, perineural and angiolymphatic invasion.<sup>7</sup> Present case manifested with cellular atypia, mitotic figures (6-10/10 high power fields), extensive areas of necrosis, vascular emboli characteristic of malignant acrospiroma. Metastatic spread is usually to lymph nodes, nodal involvement is seen in 39% of patients and visceral metastasis occurs in 28% of patients. Chest radiograph, ultrasonography of abdomen, computed tomography (CT) of the chest / positron emission tomography (PET)-CT are helpful in metastatic work-up.

Primary modality of treatment for malignant acrospiroma is surgery in the form of wide local excision with or without lymph node dissection.<sup>8,9</sup> A 3 cm margin should be taken for wide local excision if these margins are not respected due to anatomical considerations strict histological examination of margins should be done. As nodal involvement is commonly seen some authors advocated prophylactic regional lymph node dissection.<sup>10</sup>

Five-year post surgical survival rate for malignant acrospiroma is less than 30 %.<sup>11</sup> Even after surgery recurrence rates are more than 50%.<sup>12</sup> Radiotherapy is used as adjuvant therapy after surgery in presence of risk factors such as lymphatic invasion, vascular emboli, perineural invasion, positive margins, residual nodes. Recommended doses are 50 to 70 Gy.<sup>13</sup> Present case had positive resected margins, vascular emboli and has been treated with a total dose of 60Gy in 30 fractions. The benefit and effectiveness of adjuvant chemotherapy has not been proven yet.

In conclusion, locoregional radiotherapy as adjuvant to wide surgical excision of primary with or without locoregional lymph nodes can be considered as the standard therapeutic approach in malignant acrospiroma of chest wall with concern to its locoregional aggressiveness and benefit from chemotherapy is yet to be established in future.

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