Sweat gland carcinoma with lung metastases

ABSTRACT
Sweat gland carcinoma is a rare skin tumor. The tumor has propensity to spread to lymph nodes and distant metastases has been reported. Their exact incidence in the Indian setting is not known. Aspects related to treatment are also not clearly defined. Though surgery forms the initial treatment approach, adjuvant treatment has not been properly explored. We report here a case of sweat gland carcinoma with bilateral lung metastases.

KEY WORDS: Chemotherapy, radiotherapy, surgery, sweat gland carcinoma

INTRODUCTION
Sweat gland carcinomas have been reported as early as in 1865. Berg and Mac Davitt provided a classification system for such tumors way back in 1968. These tumors include porocarcinomas; syringomatous carcinomas; ductal carcinomas; adenoid, cystic and mucinous carcinomas. These tumors have also been divided as the eccrine and apocrine varieties. They show aggressive behavior with distant metastases. Lymphatic metastases are common, followed by involvement of bone, lung and skin. These tumors show cytokeratin and are positive for carcinoembryonic antigen. The overall prognosis of these tumors is poor.

Surgery is the main treatment modality in localized lesions. Adjuvant treatment is not clearly defined but can have an important role, keeping in view their aggressive nature. Postoperative radiotherapy may help in local control of these tumors.

For systemic treatment, various chemotherapy agents have been tried, but no definite treatment recommendations are available. Newer chemotherapy agents need to be tried in the metastatic setting.

CASE REPORT
A 50-year-old woman reported to our tumor clinic in August 2005 with complaints of swelling in the left arm for the last two years. The swelling had increased in size for the last three months. The patient underwent wide local excision of the tumor two months ago without any adjuvant treatment. The growth recurred along with axillary lymphadenopathy and bilateral lung metastases. On examination, there was a proliferative growth 4 x 4 cm in left mid-arm along with erythematous induration [Figure 1]. The left axilla had multiple firm axillary lymph nodes, with the largest lymph node measuring 3 x 4 cm in size. A biopsy from the arm lesion showed it to be a sweat gland carcinoma [Figure 2]. A chest X-ray showed evidence of left lung metastatic lesion. A CT scan evaluation showed the evidence of bilateral multiple lung metastases [Figure 3].

The patient was started on palliative chemotherapy with weekly injection Methotrexate 50 mg IV along with radiotherapy to the primary tumor site with a dose of 20 Gray in five fractions.

The lesion showed considerable reduction at the end of six cycles of chemotherapy and palliative radiotherapy [Figure 4].

The axillary lymphadenopathy persisted but lung lesions showed a partial response.

The patient received a total of six cycles of weekly chemotherapy and the disease was stable at six months' follow-up. The patient is now being planned for radiotherapy to the axillary lymphadenopathy.

DISCUSSION
Sweat gland carcinoma is an entity that has been known for long but continues to be a therapeutic dilemma. They have been reported to occur at various sites, including eyelids, scalp, foot digits, breast, axilla, nose, etc. The molecular pathogenesis is poorly understood. A low incidence of loss of heterozygosity at Chromosome 17p has been noticed along with p53 alterations. These tumors are more aggressive than squamous or basal cell carcinoma and early recognition can have implications on
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Figure 1: Clinical photograph showing the pretreatment lesion

Figure 2: Clinical photograph showing regression of lesion two weeks post-treatment with chemoradiotherapy

Figure 3: Photomicrograph of biopsy of the lesion showing sweat gland carcinoma (original magnification, 10x)

Figure 4: Pretreatment CT scans showing bilateral lung metastases

Association of this tumor with immunodeficiency states is not established, though it has been reported to occur in immunosuppressed individuals. These tumors can have varied presentation with metastasis to different sites. Even spinal and bone marrow metastases have been reported. Doley et al have reported a case of sweat gland carcinoma with bony and seventh cranial nerve involvement.

Diagnosis is often delayed due to its low incidence and confusion with other skin tumors. Delgado et al have used sentinel node biopsy of axilla in the diagnosis of these tumors as lymphadenopathy is a common finding.

Yamazaki et al have advocated surgery even in metastatic setting of the tumor. Other studies have found response to both radiotherapy and chemotherapy.

5-Fluorouracil is one agent reported to produce good results. Swanson et al have reported a case with complete response on 5-Fluorouracil treatment.

Local resection plus regional dissection should be performed on patients with LN metastases. Postoperative irradiation may be helpful to increase local control and reduce incidence of distant metastases.

Osaki et al have reported a similar case of axillary sweat gland carcinoma with bilateral lung metastases. The patient was treated with metastectomy of pulmonary lesions, with good survival.

Overall a five-year disease-free survival for these tumors is less than 30%. Treating physicians need to be aware of this entity of tumors in order to distinguish them from squamous or basal cell carcinomas or skin metastases so as to ensure an early diagnosis and treatment.
REFERENCES


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Announcement

Drug interaction checker for prescriptions (DICP)

Maharashtra State Pharmacy Council’s Drug Information Center has developed CD based interactive software to detect Drug-Drug Interactions in any given prescription to be dispensed by the pharmacist. Five therapeutic systems (Antihypertensive, antidiabetic, antianginals, lipid lowering, antibiotics) have been covered in this program. In this easy-to-use software (CD) thousands of brands with corresponding generic drug names are loaded in computer system as a database from which interaction message appears on screen, once prescription entry is made.

1) Enter Prescription By Brand/Generic Names in DICP
2) Just Click On GENERATE INTERACTIONS button
3) All possible Drug Interactions in this Rx will appear on Screen...
   • RED: Hazardous, major
   • BLUE: Moderate in severity
   • GREEN: Clinically Not Significant

Thus, any Adverse Drug Reactions can be nipped in bud by prescriber in the first place.

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