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RESEARCH ARTICLE

SEBACEOUS CARCINOMA OF AXILLA: A RARE CASE REPORT

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Abstract

Sebaceous carcinoma (SC) is a rare cutaneous malignant neoplasm. It is derived from the epithelium of sebaceous glands and thus, can occur anywhere in the body where these glands are found. SC are of two types: ocular and extraocular, with extraocular SC being rare and SC of axilla being very rare. The paper reports a case of 55-year-old male patient, with complain of swelling in the right axilla. The patient underwent wide local excision of the mass and the excised specimen was sent for histopathological (HPE) analysis, which showed features consistent with sebaceous carcinoma. The patient was planned for treatment with adjuvant chemotherapy, and is currently under treatment.

Introduction:-

Sebaceous carcinoma (SC) is a rare, aggressive, highly malignant and potentially lethal cutaneous neoplasm. Its incidence is 1-2 per 10,00,000 cases. SC constitutes around 0.05% of all cutaneous malignancies.[1]It arises from the epithelium of sebaceous glands of the skin and adnexa of different parts of the body such as meibomian glands (51%) in the tarsus, the Zeis glands (10%) of the eyelashes or skin of the eyebrow. Most common site are the eyelids as the periocular area is rich in sebaceous glands.[2]SC are of two types: tumors arising in the ocular adnexa and tumors arising in extraocular sites. Other cancers also show sebaceous differentiation, but pure malignant sebaceous tumor is very rare, with approximately 75% occurring in the periocular region.[3] It affects patients between the sixth and eighth decade of life and is more common in females than in males.[4] SC is very rare in axilla and is easily confused with primary lymphoma or secondaries from breast.[5]

Case presentation

A 55-year-old male patient attended the Department of General Surgery, Regional Institute of Medical Sciences (RIMS) with complain of swelling in the right axilla for more than three months. The swelling was initially small in size and gradually increased in size over time, with fungating appearance seen in the last one month. There is no history of pain, swelling of right upper limb, any breast lump, cough, hemoptysis, chest pain or any other swelling in other parts of the body. There is no family history of malignancy or similar illness in the past. There is no history of diabetes, hypertension, tuberculosis or any known drug allergy. The patient gives history of cigarette smoking (2-3 sticks/day) for the past 20 years.

On physical examination, a single small nontender fungating mass (3.0 × 2.0 cm in size)with irregular margins, fixed to the skin but mobile from chest wall was seen in the right axilla. Both the breasts and opposite axilla were clinically normal and no other lymph node or swelling were clinically palpable. The patient underwent wide local excision of the axillary mass with axillary clearance and the excised specimen was sent for histopathological (HPE) examination.HPE of the excised specimen showed features consistent with sebaceous carcinoma with irregular

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infiltration, basaloid differentiation, stromal desmoplasia, non-continuity with the epidermis and presence of lymphovascular tumor emboli. Deep resection margin was also free of tumor cells (Fig. A).

Fig A:- HPE of the excised axillary specimen showing features consistent with sebaceous carcinoma of the axilla

After the confirmation of tissue diagnosis, the patient was transferred to the Department of Radiation Oncology, RIMSwhere thorough physical examinationwas done. On examination, the patient has an average built with good general condition. He has aBody Surface Area (BSA) of 1.6 m^2 and Karnofsky Performance Score (KPS) of 90%. No lymph node or anysuperficial swelling were clinically palpable. The surgical site looked healthy with no signs of inflammation.

Routine baseline investigations (CBC, biochemistry & ECG) were done and were found to be uneventful and metastatic workup (Chest X-ray and USG whole abdomen) found no sites of metastasis or any organ involvement.CECT thorax showed features suggestive of mediastinal lymphadenopathy with enlarged (10-15 mm) mediastinal lymph nodes in left peri bronchial and aorto-pulmonary window and no other abnormality (Fig. B).

The patient underwent bronchoscopy which showed no visible growth or mass and Bronchoalveolar Lavage (BAL) was done. BAL fluid analysis and cell block cytology were both negative for malignant cells.

The patient was planned for adjuvant chemotherapy with Injection Paclitaxel (260 mg) on Day 1 and Injection Cisplatin (50 mg) on Day 1,2& 3; three weekly cycles, with all the necessary pre- and post- medications. The patient has received two cycles of adjuvant chemotherapy till now and is currently under treatment.

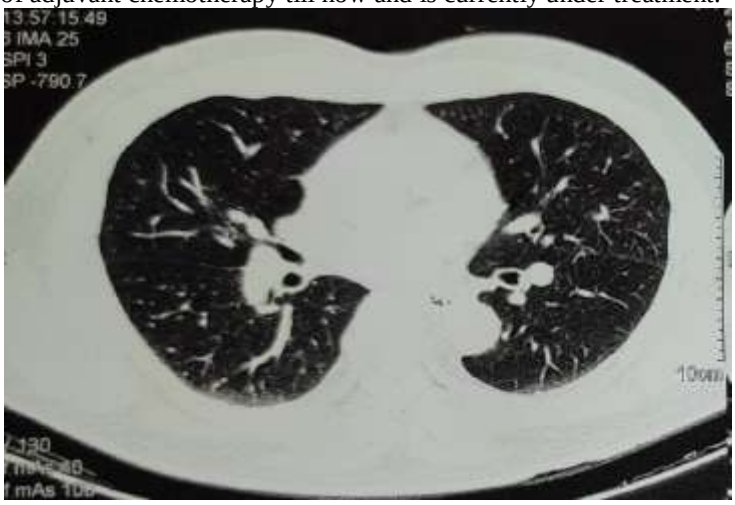

Fig B:- Postoperative CECT thorax showing mediastinal lymphadenopathy.

Discussion:-

Sebaceous carcinoma (SC) is a rare and aggressive cutaneous malignancy. It is divided into two types: ocular and extraocular group. The upper eyelid is involved 2 to 3 times more than the lower eyelid.[6] The tumor arises from the sebaceous glands in the skin and around 75% of these tumors arises in the periocular region.[2,7] Most common extraocular site that is involvedis the parotid glands.[8] Rarely it is seen on the trunk, oral cavity, genitalia and extremities. It is more common in females, but the incidence of extraocular SC is more in the males. It is associated with Muir-Torre Syndrome (MTS).[9] Accurate diagnosis of extraocular SC is very important, to predict behavior and as a marker of underlying MTS/LS.

Clinical presentation of SC is nonspecific, and generally presents as a nodule or ulcer, which later extends deeply. Radiological features are nonspecific, but imaging is important to find out other tumors in cases of MTS.[10] Ocular and extraocular SC have the same histological features. Microscopically, the presence of mature sebaceous cells with scalloped nuclei and abundant pale vacuolated cytoplasm secondary to lipid deposits, is regarded as hallmark of sebaceous differentiation.[11]Immunohistochemically (IHC), SC stain diffusely positive for CK7 and CAM5.2, thus helping in diagnosis.

The tumor shows diverse clinical and histological features, thereby, causing a delay at arriving an accurate diagnosis. Differential diagnosis of poorly differentiated SC includes balloon cell melanoma, metastatic clear cell renal cell carcinoma, neuroendocrine carcinoma, basal cell carcinoma, squamous cell carcinoma and breast carcinoma. IHC of SC and breast cancer are similar, and there are no definitive diagnostic markers.[12]Proper clinical examination of the breast and HPE analysis of the excised specimen, plays an important role in differentiating SC from breast cancer.

The most important prognostic factor for SC is early diagnosis. If the diagnosis is made after the first 6 months of disease, then there is an increase in the mortality rate from 14% to 38%.[13] Factors associated with poor prognosis are lymphatic or vascular permeation, orbital metastasis, multicentric origin, poor differentiation, pagetoid cells on histology, highly infiltrative pattern, tumor diameter more than 10mm or duration of symptoms more than six months.[14]

Treatment of choice for SC is surgery (wide local excision with regional lymph node dissection).[15]Other treatment modalities includes cryotherapy, chemotherapy and radiotherapy.[16] Multimodality approach improves both prognosis and survival, with radiation therapy being reserved for patients, who are unwilling or unable to go for surgery.[16]The 5-year overall survival of extraocular SC is 60%, with nodal metastasis and positive margins indicating a poor prognosis.[15] To date there is no recommended protocol or guideline, for treatment and staging of extraocular sebaceous carcinoma.

Conclusion:-

Extraocular sebaceous carcinoma (SC) is quite rare, with SC of the axilla being extremely rare. Thorough clinical examination, adequate surgery, HPE and IHC analysis is required for accurate diagnosis, with histology playing an important role in the diagnosis. Our patient was diagnosed as a case of Sebaceous Carcinoma (SC) of axilla, on the basis of HPE of the excised axillary specimen, and is currently under treatment with adjuvant chemotherapy.

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