

Sweat Gland Carcinoma of Scalp

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Abstract

Sweat gland tumors of scalp are rare. We report a case of sweat gland tumor that had invaded bone.

Key words

Sweat gland, Scalp, Bone erosion.

Introduction

Tumors of scalp and skull are rare. Skull lesions represent 1-2% of all bone lesions. Tumours of head can be primary or secondary. Primary tumours arise from skin, its appendages or from bone. These tumors are locally invasive and generally do not transgress dura mater. Primary tumors can be benign (dysmoplastic) or malignant. Tumors like sweat gland tumors invading bone are extremely rare.

Case Report

60 years old male presented with an enlarging swelling in the occipital region of the skull for the last 5-6 months. On examination, this swelling was firm in consistency, immobile, non-tender and skin over the swelling was adherent at many places. There was no other swelling in the body. Examination of the patient revealed no other systemic abnormality. His x-ray skull showed erosion of the bone in the occipital region with overlying soft tissue swelling. CT scan (Fig. 1) showed soft tissue mass with destruction of the bone, no intracranial abnormality. On operation, the mass was completely excised. Though mass had destroyed bone and had intra-cranial extension, but dura was intact. Histopathology of the mass revealed sweat gland adenocarcinoma (Fig. 2, 3). Patient was

discharged after two weeks. Follow up of the case upto 6 months showed no recurrence.

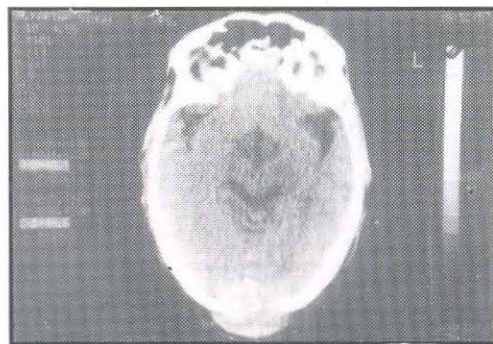


Fig. 1. CT scan head showing soft tissue attenuation mass in occipital region with destruction of underlying bone.

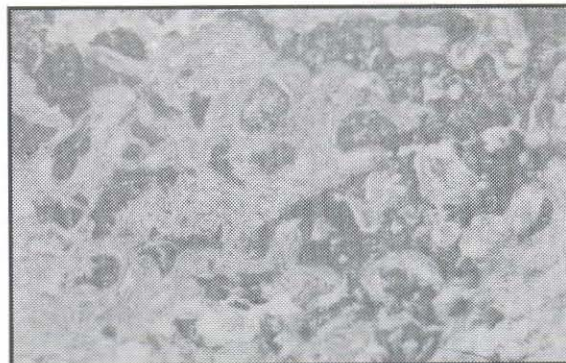


Fig. 2. Low power view showing glandular and tubular structures lined by epithelial cells.

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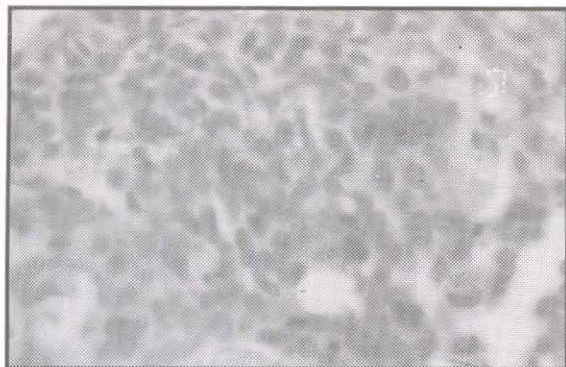


Fig. 3. High power view showing pleomorphism of the epithelial cells and hyperchromatic bizarre nuclei classical of sweat gland adenocarcinoma

Discussion

Sweat glands tumors as such are rare. Their commonest sites are palm and sole. Commonest sweat gland tumor is cylindroma (turban tumor). Histologically and clinically, malignant sweat gland tumors are rare. Dissanayaka and Salm(1) in 1980 were able to collect only ten acceptable instances of which only two were clinically malignant. The presentation of these lesions is usually in the adult and when they occur in children, they tend to be malignant. The histological features of malignancy are the same as in the case of most epithelial tumors, i.e., increased cellularity, enlarged nuclei, cellular pleomorphism and presence of bizarre mitotic figures. Distinction between metastatic adenocarcinoma and primary sweat gland carcinoma can be very difficult at times. Identification of adenocarcinoma arising from eccrine glands is difficult unless lesion has invasive characters which were seen in our case both radiologically (destruction of bone) and histologically.

Malignant lesions of bones of skull seen are Ewing's, osteogenic, dermoid and metastatic lesions. Metastatic lesions come from kidney, breast, lungs or there can be extension of intra-cranial tumors.

In review of literature, a single cylindroma in old patient was reported by Given (2). Malignant degeneration was

reported by Rockerbie (3) and Urbanski (4) Robertson *et al* (5) reported a case of periosteal osteosarcoma of the cranium arising from occiput in 29 year old male. Desai(6) *et al* reported that while Ewing's sarcoma is a common malignant tumor, but it is associated with good prognosis in cranium. Gracia Silva *et al* (7) reported occurrence of basal cell carcinoma in a girl who had cobalt irradiation of the cranium for acute lymphoblastic leukemia. Landys *et al* (8) reported management of a case of Non-Hodgkin lymphoma of the cranium. Ng *et al* (9) reported a case of myxoma of the cranium, its findings and clinical features. Ovul *et al* (10) presented a case of congenital desmoplastic fibroma of the right parietal area between the two skull tables. Gooneratne *et al* (11) reported a case of multicentric giant pigmented nevi of the scalp with total invasion of the cranium and duramater. Multicentric infantile myofibromatosis was reported by Hasegawa *et al* (12) in a girl of 15 months. Wangerin *et al* (13) described a primary squamous cell carcinoma in 60 year old patient in visceral cranium. Uri and Goiten evaluated cases of chordomas treated with cobalt therapy(14). Anderson *et al* (15) described reconstruction after excision of recurrent basal cell carcinoma. Neff *et al* (16) reported a case of cryptic osteoid osteoma of cranium.

None of these authors have described sweat gland adenocarcinoma in scalp. In a review of literature, we did not come across a single case report of sweat gland carcinoma of scalp. It is rarity of this case that made us to publish this case.

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