Abstract:
A 55 year old male patient presented with a swelling with ulceroproliferative lesion over left thigh with left inguinal lymphadenopathy for 8 months. Clinically it appeared to be squamous cell carcinoma. Fine needle aspiration cytology surprisingly revealed a malignant adnexal tumor which was confirmed by wedge biopsy. Metastatic work up done and the Patient was treated with wide local excision and left ilio-inguinal block dissection with post operative Radiotherapy. Post operative histopathology revealed an Eccrine hidradenocarcinoma. The case is presented for its rarity, as Eccrine carcinoma accounts for only 0.005 percent of all skin cancers.

Keyword: Squamous cell carcinoma, Malignant adnexal tumor, Eccrine Hidradenoma

Clinical it was suspected to be squamous cell carcinoma with inguinal lymphnode metastasis. Fine needle aspiration cytology surprisingly revealed it to be Malignant adnexal tumor of skin with inguinal node metastasis, which was confirmed after wedge biopsy. Figure 1 shows the findings of fine needle aspiration cytology.

FIGURE 1A & FIGURE 1B

PATIENT DETAILS
A 55 year old male patient presented with a swelling with ulceroproliferative lesion over the left thigh with left inguinal lymphadenopathy
Figure 1- Fine Needle Aspiration cytology showing basaloid cells in squamoid background suggestive of skin adnexal pathology

1A - Low power view 1B - High power view

High frequency ultrasound scan and computed tomography revealed a malignant mass lesion in the subcutaneous plane of left thigh with left superficial inguinal lymphnode enlargement. Metastatic work up was done. Patient was treated with wide local excision with left sided Ilio-inguinal block dissection. Figure 2 shows operative steps and gross appearance of the excised specimen.

**FIGURE 2A & FIGURE 2B**

Figure 2A - Incision centered around the lesion & the finger pointing the enlarged inguinal lymphnode
Figure 2B - After wide local excision of the lesion, the muscles of the thigh exposed

**FIGURE 2C & FIGURE 2D**

Figure 2C - Lazy 'S' incision made for Ilio inguinal block dissection
Figure 2D - View exposing the enlarged inguinal nodes with fibrofatty tissue

**FIGURE 2E & FIGURE 2F**

Figure 2E - Views of the excised specimen
Figure 2F - Close-up view of the lesion
FIGURE 2E - During ilio inguinal block dissection, after clearance of the superficial inguinal lymph nodes.

Figure 2F - Gross specimen immediately after excision.

FIGURE 2G & FIGURE 2H

Figure 2G - Gross specimen after fixation by the pathologist.

Figure 2H - Cut section showing varying soft and solid areas.

Histopathology showed Malignant adnexal tumor of Eccrine differentiation (Hidradenocarcinoma) with all circumferential and deep resected margins free of tumor and 7/16 nodes showed metastatic deposits. Figure 3 shows the histopathological features of Malignant Hidradenoma.

Figure 3A - Low power view showing subepithelial clusters of malignant cells.

Figure 3B - Basaloid cells in squamoid background with vascular invasion in High power view.

Then the patient was subjected to postoperative Radiotherapy (70 Gy for primary field and 50 Gy for the inguinal region). On 18 months follow up, the patient does not have recurrence and he is still on follow up.

DISCUSSION

Skin adnexa comprises hair follicles, sebaceous glands and sweat glands. The sweat glands are further classified into Eccrine and Apocrine glands. Hence Tumors of skin adnexa are of numerous types such as Hair follicle tumours, External root sheath tumours, Hair matrix tumors, Sebaceous gland tumors, Apocrine gland tumours, Eccrine gland tumours, etc. Our discussion is confined to our case- Malignant Hidradenoma which is a malignant Eccrine gland tumor. Malignant hidradenoma is otherwise known as Hidradenocarcinoma or Malignant Acrospiroma.
It is defined as “a malignant tumor traditionally regarded as displaying Eccrine differentiation and arising from a pre-existing Hidradenoma or de novo”. This commonly occurs in elderly adults as ulcerated nodules in extremities with or without regional lymphnode involvement. Rarely it may have an aggressive course with pulmonary metastasis. It accounts for 0.005% of all skin tumors. At times it may mimic metastatic carcinomas that may involve the skin.

Pathologically this is characterized by large clusters of glycogen rich clear cells (Basaloid cells) in ductal/tubular/nest pattern with variable mitosis and predominant squamous differentiation. It lacks Comedon reaction (which is a feature of Sebaceous gland tumor) and Decapitation reaction (which is a feature of Apocrine gland tumor).

Eccrine gland tumors are treated with Wide local excision with Regional lymphnode dissection. Small lesions near the vital structures are treated with Mohs microsurgery. Eccrine tumors have a predictable response to post operative Radiotherapy. Role of Chemotherapy is under trial. Strict follow up for recurrence is mandatory.

References:

Rege J, Shet T. Aspiration cytology in the diagnosis of primary tumors of skin adnexa.