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RESEARCH ARTICLE

NEGLECTED ADENOID BASAL CELL CARCINOMA OF THE ARM PRESENTING WITH SECONDARY MYIASIS: A RARE CASE REPORT

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Abstract

Basal cell carcinoma is the most common cutaneous malignancy, typically characterized by slow growth and low metastatic potential. Among its histological variants, the adenoid type is rare and generally considered a well-differentiated form. Myiasis, defined as infestation of human tissue by fly larvae, is an uncommon complication in malignant skin lesions and is rarely documented in association with basal cell carcinoma. We report a rare case of neglected adenoid basal cell carcinoma of the upper limb complicated by wound myiasis in a 67-year-old male. The patient presented with a foul-smelling ulceroproliferative lesion containing live larvae. Following larval removal and wide local excision, histopathological examination revealed nests of basaloid cells arranged in a characteristic lace-like and glandular pattern with mucin deposition, consistent with adenoid basal cell carcinoma. Residual larval forms were noted within the tumor tissue despite prior manual removal. The postoperative course was uneventful. This case highlights an unusual and underreported association between adenoid basal cell carcinoma and myiasis, emphasizing the role of neglect, ulceration, and poor local hygiene in predisposing to secondary parasitic infestation. Early recognition of chronic skin lesions and timely intervention are essential to prevent avoidable complications and improve clinical outcomes.

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Introduction:-

Basal cell carcinoma is the commonest malignancy of skin with a higher incidence in sun-exposed areas[1]. Literature has listed several variants of this entity with the adenoid variant having an incidence of 1.3% approximately [2]. It usually presents as a single nodule or as ulceroproliferative lesion with rolled out edges. Fair skinned people are more vulnerable in comparison with people having a darker complexion [3,4]. Myiasis is the

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infestation by larval forms of flies. Poor personal hygiene and low socioeconomic status often leads to these ulcers becoming a breeding ground for larvae. Human myiasis presenting as a secondary complication in cutaneous malignancies is exceedingly rare. Myiasis in adnoid variant of basal cell carcinoma is even rare. We report this unusual association to highlight such a rare complication and emphasize the importance of early diagnosis and hygiene in chronic skin lesions which will aid in diagnostic and therapeutic implications for both clinicians and pathologists.

Case Report:-

A 67 years old male presented with a foul smelling ulceroproliferative lesion in his left arm. The lesion started as a small nodule and increased in size gradually. The patient noticed live maggots within the lesion 2 days back and reported to our hospital. On examination, there was an ulcero-proliferative lesion with rolled out edges of size 5x4cm present in the lateral aspect of left arm. Live larval forms were noted. The larvae were first killed with turpentine oil and then removed manually. Wide local excision was performed. Gross examination of the specimen showed tumor measuring 4.6x4.4x1.3cm. Distance from deep resected margin was 0.5cm.(Fig.1)



Fig1 shows gross wide local excision specimen with an ulceroproliferative lesion.

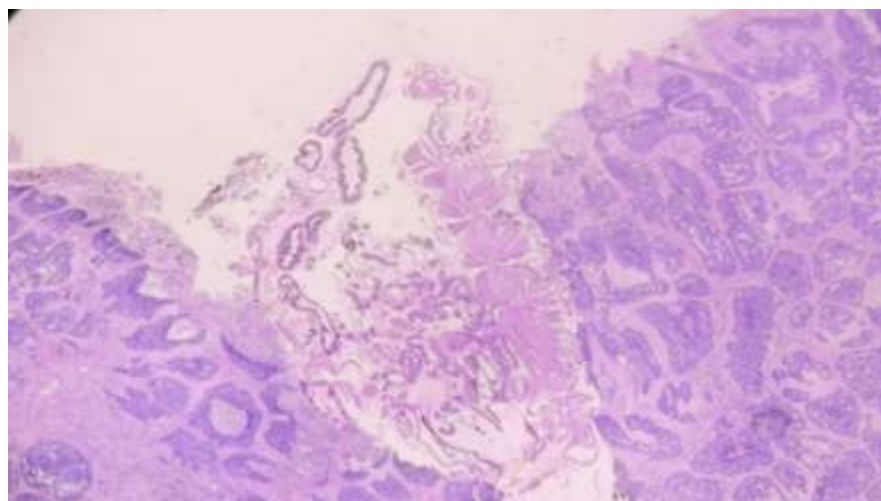


Fig 2 shows low power view of tumor nests in basal cell carcinoma with central maggot infestation (10X, H&E)

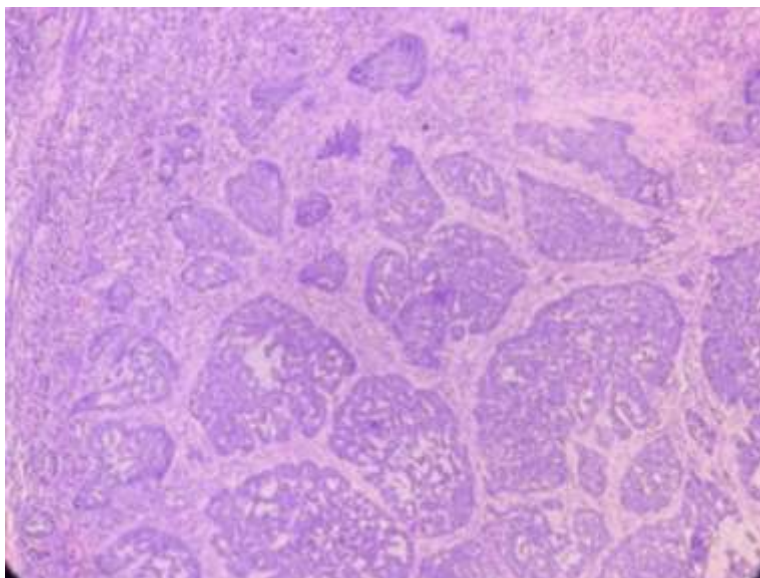


Fig 3 showing nests of basaloid cells forming gland like pattern. Some of the tumor nests show peripheral palisading (10X,H&E)

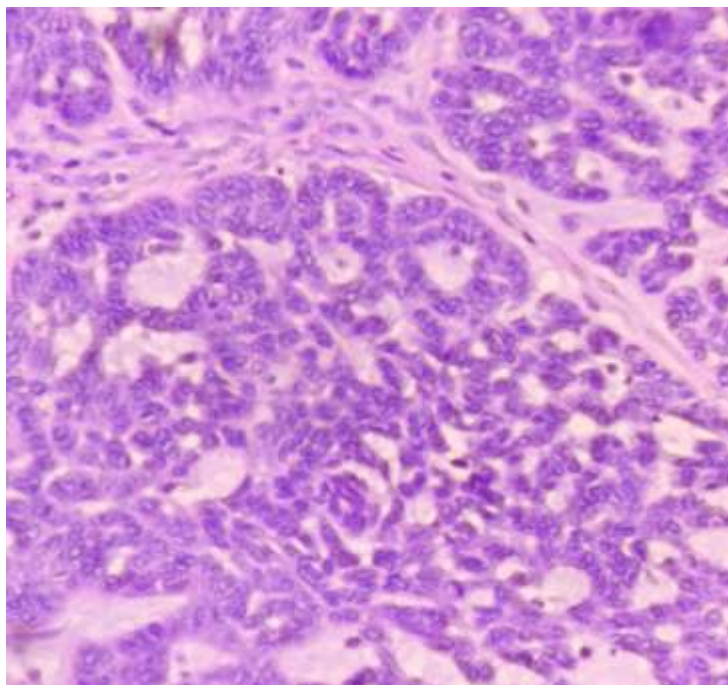


Fig 4 showing uniform basaloid cells arranged in tubules with central mucin deposition. (40X, H&E)

Microscopy showed an infiltrating malignant neoplasm composed of basaloid cells arranged in nests with Larval forms (Fig2). Many of the nests showed lace like arrangement with irregular mucin filled spaces(Fig3,4). Stroma showed mucin deposition and inflammation. The findings were consistent with Adenoid variant of Basal cell carcinoma. Despite manual removal, few larval forms were seen embedded within the tumor. Post operative period was uneventful and patient showed good recovery.

Discussion:-

Basal cell carcinoma is the most common skin malignancies and comprises 70% of all skin tumors. one of its rare variants with an incidence of 1.3% approximately. [2] . Fair skinned people are more vulnerable to this tumor in comparison with dark skinned individuals.[3,4]Its has a relatively low metastatic potential but higher potency to spread locally.[5] The adenoid variant of BCC has reportedly lower malignant potential and is seen as a differentiated form. The significant arrangement of cells in gland-like or tubular pattern forming a lace like pattern is the characteristic feature, along with stromal retraction and mucin deposition. In some cases, there will be formation of lumina with agranular material deposition, surrounded by secretory cells.[6] It is commonly mistaken as cutaneous variant of Adenoid cystic carcinoma or Primary cribriform apocrine carcinoma, both of which carry more malignant potential than Adenoid BCC. The differentiation from adenoid cystic carcinoma, which is a close mimicker, carries prognostic differences. The aggressive cells with tendency for infiltration and perineural invasion are seen in Adenoid cystic carcinoma and will be absent in Adenoid BCC.

Myiasis is the infestation by larval forms of Diptera order, in necrotic tissues. It is rarely encountered but is seen in elderly patients with poor self hygiene, immunocompromised or mentally challenged individuals.[7,8] Cutaneous myiasis can present either as a furuncular lesion- wherein the larva forms a pustule above the skin surface or it can present as wound myiasis- where there is open wound infection with visible larval forms. Migratory larval myiasis have also been documented. Malignancy being a predisposing factor for myiasis, though recognized, is still under documented.[9] Many treatment modalities like cryotherapy, radiotherapy, curettage and electrodesiccation treatment have been proposed. But surgery remains to be the treatment of choice.[10] However, the presence of myiasis, like in our case, complicates the surgical method. The larvae, being photophobic, usually tunnels away from the wound site. So, it is advised to manually removal the visible larvae, excise the tumor and then pressure irrigate the surgical site.[11] This can be followed by use of systemic antihelminthic drugs.

Conclusion:-

The occurrence of myiasis in association with adenoid basal cell carcinoma is an extremely uncommon finding and represents a rare complication of an otherwise indolent cutaneous malignancy. This case illustrates how prolonged neglect and surface ulceration in skin tumors can create conditions conducive to secondary parasitic infestation, particularly in vulnerable clinical or socioeconomic settings. Also, we reinforce the importance of early medical attention for chronic skin lesions, and highlight the need for continued awareness of preventable complications in cutaneous malignancies.

Conflicts of Interest:-

None

Source of Funding:-

Nil

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The authors declare no conflicts of interest.

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None.

Ethical Statement:

Informed written consent was obtained from the patient for publication of this case report and accompanying images.

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