Case Report

Cutaneous melanoacanthoma of the anterior abdominal wall – a case report of a rare entity

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Abstract

Melanoacanthoma is a benign neoplasm, categorized as a rare subtype of pigmented seborrheic keratosis. Known to be rarer in occurrence, the sites commonly include the skin of the head and neck, anal and perianal regions, and oral mucosa. The incidence of this tumor in the anterior abdominal wall is rare, and with the clinical picture in mind, it carries a prognostic significance to differentiate from cutaneous melanoma. The diagnosis entirely relies on histopathology. The tumor carries an excellent prognosis with a complete surgical resection. This lesion is presented owing to the rarity of the tumor itself added with an occurrence at an unusual site and to discuss the possible differential diagnoses.

Keywords: Anterior abdominal wall, melanoacanthoma, pigmented nodule.

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INTRODUCTION

Melanoacanthoma is an uncommon benign tumor with mixed proliferation of keratinocytes and dendritic melanocytes, first described by Mishima and Pinkus in 1960[1]. It is a rare subtype of pigmented seborrheic keratosis. They usually occur in skin and oral mucosal sites[2]. Cutaneous melanoacanthomas presents in adults over 40 years of age, preferably in light skinned people, developing slowly over a long time period without any sexual predilection[3]. In contrast oral melanoacanthomas affects almost exclusively black youngsters with a female predilection and also shows a rapid progression[4]. Common sites of cutaneous melanoacanthomas includes head and neck, scalp and upper extremities[5]. Unusual sites are conjunctiva, nipple and areola, genital and perianal regions[6,7]. Cutaneous melanoacanthomas usually manifest as solitary or multiple pigmented papules, plaques, cutaneous horns and nodules[8]. Patients are generally asymptomatic but diagnosis of these lesions are of increased concern because they could be easily mistaken for malignant melanoma or its occurrence may be associated with internal malignancy (leser-trelat sign)[9]. We hereby report a case of solitary cutaneous melanoacanthoma on the anterior abdominal wall in a 52 year old female, a rare entity at an unusual site.

CASE REPORT

A 52 year old female presented to the outpatient department with a firm, pigmented warty nodule over the anterior abdominal wall for 6 months measuring 2 x 1.5 cm. The lesion was non-tender and non-itchy. No family history was present. A wide excision of the lesion of the lesion was planned with a 0.5cm clearance on all sides. We received the wide excision specimen following surgery.

Histopathology findings

Gross pathology

We received a skin covered soft tissue mass measuring 3 x 2 x1.5 cm. Surface of the skin showed a brownish black warty nodular lesion measuring 2.9 x 1 x 1 cm. Cut surface showed a well circumscribed brownish black nodule which was well away from the deep resected margin.[Figure 1 and Figure 2]

Microscopic findings

Sections from the received biopsy shows hyperkeratotic, hyperplastic, acanthotic stratified squamous epithelium, interspersed by numerous horn cysts with melanocytes distributed throughout the epidermis and subepithelial fibrocollagenous tissue. A diagnosis of melanoacanthoma was made.[Figure 3, Figure 4 and Figure 5]

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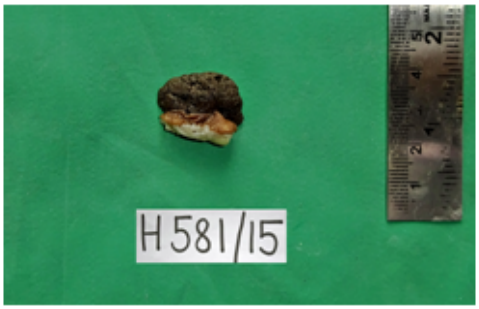


Figure 1: External surface of the specimen of Melanoacanthoma

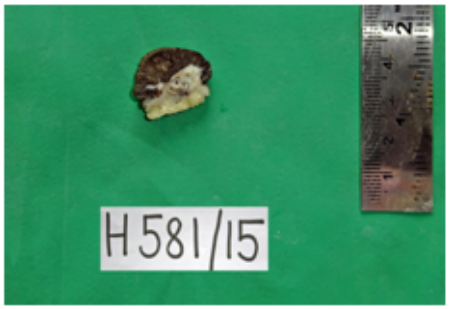


Figure 2: Cut surface of the specimen of Melanoacanthoma

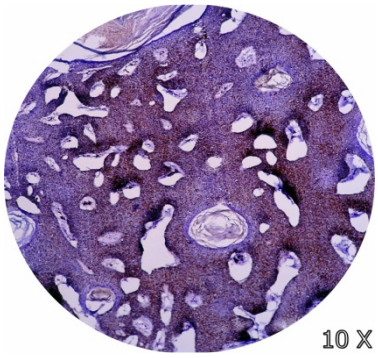
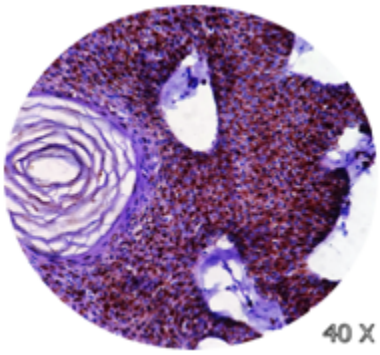


Figure 3: Low power view showing evidence of acanthosis, hyperkeratosis and horn cysts



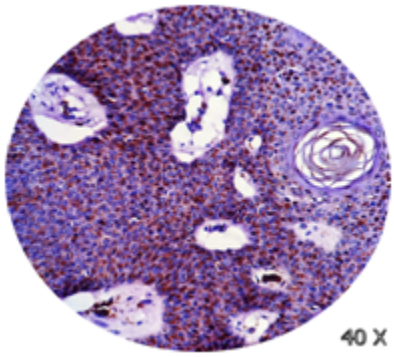


Figure 4 and Figure 5: High power view showing sheets of melanocytes and keratinocytes with excessive melanin pigmentation.

DISCUSSION

Cutaneous melanoacanthomas are rare and tend to occur in middle aged and elderly white patients with a rough blackened surface. The cell of origin of these tumors is thought to be basal and prickle cell keratinocytes in conjunction with pigment laden dendritic melanocytes. The presence of abundance of melanocytes located deep into the tumor mass instead of restricting itself to the basal layer differentiates it from the usual pigmented variant of seborrheic keratosis[10]. These lesions are known to be associated with trauma. Microscopically melanoacanthomas are characterized by epidermal proliferation of both keratinocytes and melanocytes. Acanthosis, hyperkeratosis, papillomatosis, numerous horn cysts and many melanocytes scattered throughout the tumor lobules rather than localized to the basal layer are noted. Pigment incontinence in papillary dermis is often seen. Two distinct types of melanoacanthomas are described – diffuse and clonal[5]. Diffuse types have unevenly scattered melanocytes throughout the lesion while in the clonal subtypes the cells are seen in nests. The usual differential diagnosis for cutaneous lesions are nevi, pigmented basal cell carcinoma and malignant melanoma, especially in tiny biopsies. Histopathology is absolutely essential to differentiate melanoacanthoma from these entities. The absence of cytological atypia, mitoses and invasion rules out malignant melanoma. Immunoprecipitation assays and immunoflourescent studies have also shown that melanoacanthoma is unrelated to malignant melanoma[3]. The characteristic

basal cell monotony, peripheral palisading in the nest of basal cells, retraction artefacts, apoptotic bodies and mitotic figures seen in basal cell carcinoma are almost always lacking in melanoacanthoma. The presence of horn cysts, pseudo horn cysts and absence of typical melanocyte proliferating activity at the basal layer of epidermis and neurotization rules out a nevus. A complete surgical resection or curettage with cryotherapy is usually adequate with a good prognosis. Larger lesions necessitate surgical excision. In our case, the patient was normal with no recurrence on follow up. We present this case owing to the rarity of the lesion and occurrence at an unusual site with confounding differential diagnoses.

CONCLUSION

Cutaneous melanoacanthoma is a rarer entity. Pathologists should report this lesion with caution emphasizing the importance to differentiate for other pigmented lesions especially malignant melanoma so as to guide the clinicians to opt for appropriate treatment modalities.

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