CLEAR CELL ACANTHOMA

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Case Report

A 45 year-old woman presented with a 4-year history of a lesion on the posterior aspect of her leg (Fig. 1). Dermatological examination revealed a red-brown, vascularized lesion and central squaming with a diameter of 1,5 x 2 cm. Dermatoscopy disclosed multiple dotted vessels arranged partly in a linear and partly in a reticular appearance (Fig. 2).
In biopsy clear cell changes (Fig. 3).

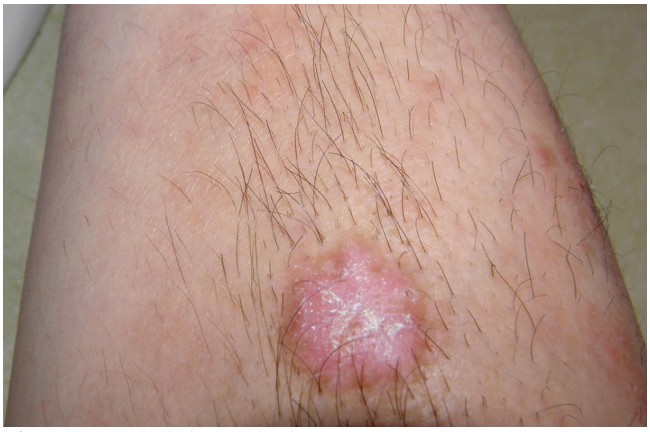

Figure 1. A nodule on the leg.

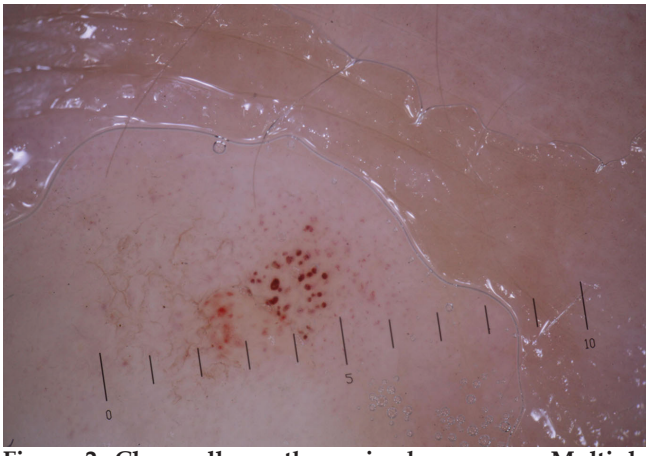

Figure 2. Clear cell acanthoma in dermoscopy. Multiple dotted vessels arranged partly in a linear and partly in a reticular appearance.

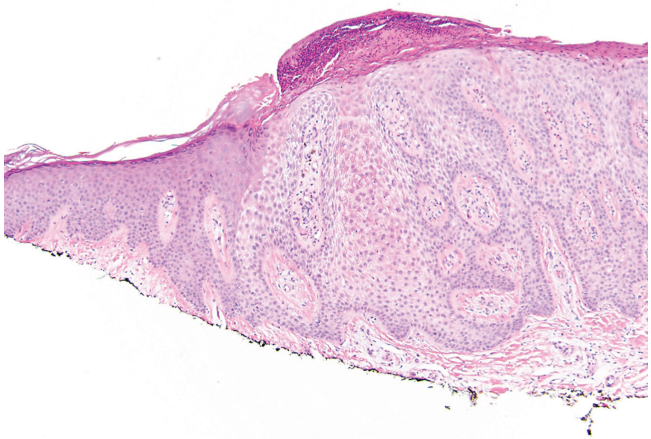

Figure 3. Clear cell acanthoma with the sharp demarcation from the normal epidermis and clear cell changes. Hematoxylin and Eosin stained sections, ×200.

Discussion

Clear cell acanthoma (CCA) is characterized by pink-brown nodules and usually occurs on the legs of elderly people. CCA was first described by Degos as a benign tumor of epidermal origin. Characterized by the presence of glycogen-rich clear/pale cells. Clear cell acanthoma are also known as Degos acanthoma, tumor Degos or acanthome ŕ cellules claires. Some authors have also suggested that it is a localized form of inflammatory psoriasiform dermatoses [1].

Localization:

It is usually located on the lower extremities of middle-aged or elderly individuals. Other sites are the upper extremities, head and neck, trunk, buttocks and genital area [1,2].

Clinical features:

It usually occurs as a solitary, slowly growing, dome-shaped papule, nodule or plaque. The lesion has sharp margins, sometimes with a keratotic scale, and a red or pink color, giving the tumor a vascular appearance. Clinical variants include multiple, pigmented, giant, atypical, cystic and polypoid CCA. The clinical differential diagnosis may include pyogenic granuloma, irritated seborrhoeic keratosis, squamous and basal cell carcinoma, melanocytic naevus and nodular amelanotic melanoma [1,2].

The diagnosis is rarely made before skin biopsy.

When examined under the microscope, clear cell acanthoma show a characteristic accumulation of clear glycogen containing cells in the epidermis. There is a circumscribed, sharply demarcated epidermal proliferation with psoriasiform elongation of plump and inter-connected rete ridges. The keratinocytes differ from those of the adjacent normal epidermis by their pale/clear cytoplasm containing a large amount of glycogen,best demonstrated with a periodic acid-Schiff reaction. The keratinocytes of the basal layer and the intra-epidermal portion of the adnexae are not involved. Parakeratosis, infiltration of neutrophils, which may form micro-abscess in the stratum corneum, and the absence of the granular layer are additional characteristic findings. Dilated capillaries and a scattered inflammatory infiltrate can be observed in the papillary dermis. The presence of melanophages in the papillary dermis and an increased number of melanocytes provide clues to the diagnosis of a pigmented CCA [3].

The common dermatoscopic feature of all these articles is the presence of pinpoint-like/dotted vessels, which are described as having a homogenous/bunch-like, reticular, pearl lessions. So far, only a few cases presented the dermoscopy analysis of CCA [4].

Histogenesis:

The histogenesis of CCA is not yet completely clear. Initially considered a tumor of sweat gland or hair follicle origin, these sites were later excluded because of the different cytokeratin expression compared to CCA. Some investigators hypothesized that CCA is a benign epidermal tumor of unknown etiology, probably caused by a specific disturbance of keratinocyte differentiation. The expression of involucrin and epithelial membrane antigen further suggest that CCA is derived from surface epithelium. However, since CCA shows histopathologic findings and cytokeratin expression similar to those observed in psoriasis, others believe that it might represent an inflammatory disease rather than a neoplastic process [5].

Characteristics include of CCA:

Asymptomatic course, slow growth, single, pink/brown nodules or small plaques often located in the lower extremities of elderly patients and the dermoscopy image. Characteristic features of CCA also occurred in the analyzed patient.

Irritated seborrheic keratose, basalcell carcinoma, Bowen's disease, squamous-cell carcinoma, keratoacanthoma and amelanotic melanoma or nodular melanoma should be considered in the differential diagnosis of CCA.

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PIGMENTED BASAL CELL CARCINOMA

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Case Reports

Case 1

A 80 year old male presented to us with pigmented blackish plaque with ulceration, present on the right nasolabial fold along the side of the angle of the mouth for seven months (Fig. 1). The lesion was gradually increasing in size. There was no history of pruritis but history of photo-sensitivity was present. The examination revealed evidence of long term sun exposure. The lesion was at first small in size, the size of a mole, and within a period of seven months it increased in size. No treatment was taken by the patient for the above complaints. On cutaneous examination, there was blackish colored plaque with central ulceration measuring 3 x 2.5 cm in diameter present on the right nasolabial fold. The appearance of the lesion was pearly with rolled borders. All the routine investigations of the patient were found to be within normal limits. A skin biopsy with the help of a 5mm biopsy punch was taken from the margins of the lesion. There was profuse bleeding during the biopsy and electrocautery had to be done to control the bleeding. On histopathological examination using a 4mm biopsy punch, the following findings were seen. The epidermis was ulcerated except at the edge with intact follicular epithelium. Clusters of atypical cells filled the upper epidermis. Cells showed ample eosinophilic cytoplasm with nuclear pleomorphism. Dyskeratotic cells were present in clusters. Mitosis was noted. After the biopsy, the diagnosis of pigmented basal cell carcinoma was made.

The patient was referred to the surgical OPD and underwent an excision biopsy with excision of 4mm of the normal skin surrounding the lesion. The biopsy was subjected to histopathological examination and the diagnosis of pigmented basal cell carcinoma was reconfirmed on excisional biopsy. Postoperative recovery of the patient was uneventful.

Case 2

A 70 year old male presented to us with a black colored lesion present over the upper eyelid (Fig. 2) (eyelid margin spared), lower eyelid for 1 year. The lesion first started as a small mole and later on it increased in size gradually within a period of 7-8 months. All routine investigations were within normal limits.

On cutaneous examination, 2.5 x 3.5 cm, blackish colored plaque was present over the upper eyelid.

On histopathological examination using a 4mm biopsy punch, the following findings were seen. The epidermis was atrophied. Lobules of atypical basaloid cells were present in the upper dermis. Peripheral palisading and tissue retraction was seen. Tumor cells were pigmented. Moderately, dense plasma cell infiltrate was seen in the dermis. The patient was instructed to use a sunscreen and to come for follow up regularly. The importance of routine full cutaneous and mucocutaneous examinations performed by a physician was also emphasized.

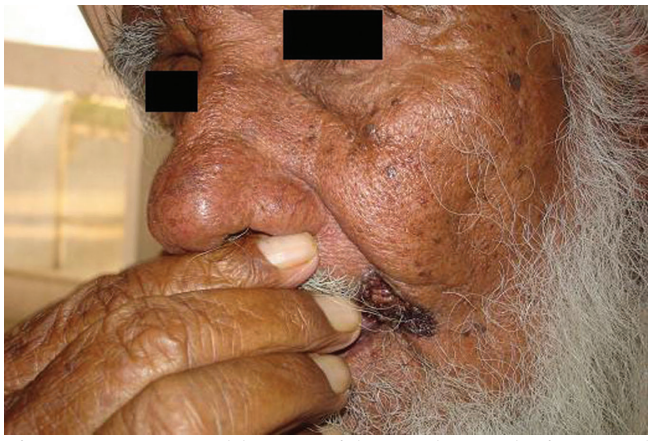

Figure 1. 80 year old man with an ulcerated pigmented plaque on left nasolabial fold.

Figure 2. Pigmented BCC in a 63 years old male near the eyelids.