

Polarizing-specific white lines in a clear cell acanthoma



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CLINICAL PRESENTATION

A 59-year-old woman presented to clinic with an intermittently scaly pink 5-mm papule on the posterior aspect of her left thigh, which had been present for approximately 3 years (Fig 1).



Fig 1. Clinical image of clear cell acanthoma on the posterior aspect of the left thigh.

DERMATOSCOPIC APPEARANCE

On polarized dermatoscopy, there were multiple coiled vessels in a serpiginous arrangement, as well as curved polarizing-specific white lines that were parallel to the serpiginous arrangement of said vessels (Fig 2, A). The white lines were not present on nonpolarized dermatoscopy (Fig 2, B).

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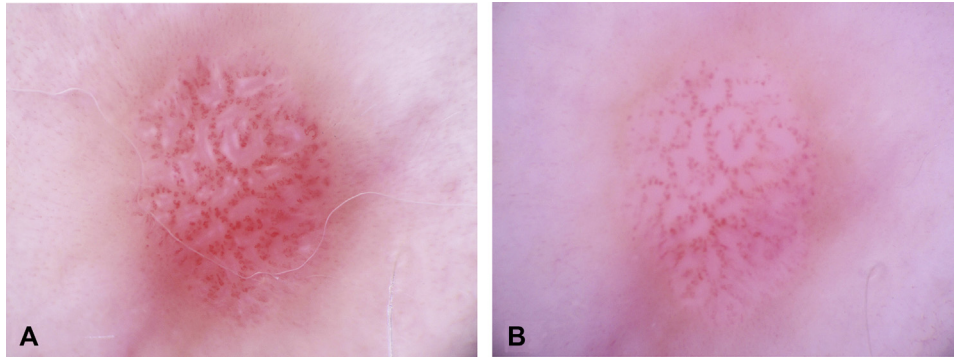


Fig 2. **A**, Clear cell acanthoma under polarized dermatoscopy. Note the curved polarizing-specific white lines parallel to the serpiginous arrangement of coiled vessels. **B**, Clear cell acanthoma under nonpolarized dermatoscopy.

HISTOLOGIC DIAGNOSIS

The epidermis had a well-demarcated area of acanthosis with keratinocytes showing clear cytoplasm.

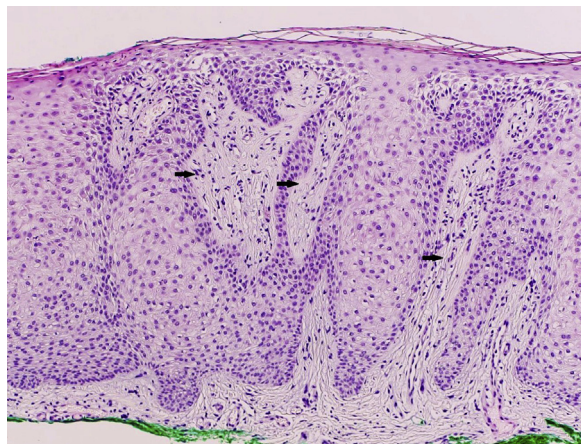


Fig 3. Histologic image of clear cell acanthoma. Fibrosis observed around vessels in the papillary dermis (arrows).

KEY MESSAGE

Clear cell acanthoma is a relatively rare, slow-growing, benign, epidermal tumor first described by Degos et al¹ in 1962. The tumor typically presents as a solitary, papular-nodular lesion or erythematous plaque, predominantly on the lower extremities of both men and women aged 50 years or older.² The adaptation of polarized dermatoscopy has allowed the field of dermatology to identify new visual features, such as polarizing-specific white lines, also known as shiny white lines, which are postulated to occur because of collagen alteration or fibrosis. Metaphorically, they have been referred to as crystalline structures/lines or chrysalis structures. Polarizing-specific white lines are most commonly described in dermatofibromas, scars, basal cell carcinomas, Spitz nevi, and melanomas. They are also observed in some cases of lichen planus-like keratosis, and squamous cell carcinoma in situ.³ Crystalline structures have been briefly mentioned in the setting of clear cell acanthoma⁴ and curved white lines have been reported in 1 case of giant clear cell acanthoma,⁵ but to our knowledge, they have never been described as occurring in lines in parallel with the array of vessels. We suspect these white lines represent the streaking fibrosis observed around vessels in the papillary dermis of clear cell acanthoma (Fig 3). Herein, we present an otherwise classic clear cell acanthoma with the finding of polarizing-specific curved lines arranged in parallel to the arrays of vessels.

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