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Dermoscopy findings in tinea capitis. Case report and literature review *

Achados dermatoscópicos na tinea capitis. Relato de caso e revisão da literatura

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Abstract: Dermoscopy is a method of increasing importance in the diagnoses of cutaneous diseases. On the scalp, dermoscopic aspects have been described in psoriasis, lichen planus, seborrheic dermatitis and discoid lupus. We describe the "comma" and "corkscrew hair" dermoscopic aspects found in a child of skin type 4, with tinea capitis.

Keywords: Child; Dermoscopy; *Tinea capitis*

Resumo: A dermatoscopia é um método que ganha cada vez mais importância na diagnose de diversas dermatoses. No couro cabeludo, já foram descritos os aspectos dermatoscópicos presentes na psoríase, no líquen plano, na dermatite seborréica e no lúpus discóide. Nós descrevemos padrão dermatoscópico de "cabelos em vírgula e em saca rolhas" encontrado em uma criança com fototipo 4, com tinha do couro cabeludo.

Palavras-chave: Criança; Dermatoscopia; Tinha do couro cabeludo

INTRODUCTION

Dermoscopy, in the last thirty years, has been used in dermatology for the identification of different structures and colors not seen by the naked eye. It has been widely used in the diagnosis of pigmented lesions.¹ However, dermoscopy and videodermoscopy have expanded their role in the diagnosis of skin diseases as psoriasis, alopecia, parasites, nail disorders, collagen diseases and others.² Since then it has been possible to identify disease specific findings. Tinea capitis has different etiological agents and can manifest with one or several areas of alopecia, with or without tonsure. The determination of a specific dermoscopic finding could lead to a straightforward diagnosis.

CASE REPORT

A five-year-old, healthy, black female patient has developed an itchy, painless patch of alopecia in the right parietal region on the scalp, with slightly scaly and progressive growth, in the past eighteen months. The emergence of other focal areas of alopecia was noticed after onset. A videodermoscopy examination with the Fotofinder[®] dermoscope under 20x and 40x magnification was performed and showed comma hairs and an important amount of corkscrew hairs (Figures 1 and 2). The direct mycological exam and the culture of the collected material identified *Tricophyton tonsurans*.

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FIGURE 1: Videodermoscopy 20x, comma and corkscrew hair



FIGURE 2: Videodermoscopy 40x. Comma and corkscrew hair

DISCUSSION

In 2008, Slowinska described in two patients with tinea capitis the presence of comma like structures (comma hair), dermoscopic finding characterized by a pigmented, homogeneously thickened and sharp slating ended hair shaft.³ The authors believe that comma hair is probably shaped as a result of subsequent cracking and bending of a hair shaft filled with hyphae. These findings are in contrast with those found in dermoscopy areas of alopecia areata (AA), where exclamation marks, vellus hairs, dystrophic and cadaverized hairs were seen, as yellow dots. In 2010, a study of seven patients with tinea capitis held by Sandoval demonstrated the presence of comma hair in all patients examined.⁴ The tinea capitis was caused by *Microsporum canis* and *Trichophyton tonsurans*. In 2011, Hughes described in six black children with

diagnosis of tinea capitis the dermoscopic finding of comma hair and the presence of hair in the shape of a corkscrew.⁵ The authors also noted the presence of dystrophic and broken hair. The fungi were identified as *Trichophyton soudanense*, *Trichophyton violaceum* and *Microsporum langeronii*. The dermoscopic finding of corkscrew hair seems to be a variation of the comma hair, manifesting in black patients. Our patient is a black child and the dermoscopy observed the presence of comma hairs and numerous corkscrew hairs. On dermoscopic examination the comma hairs and the corkscrew hairs appear to be specific dermoscopic findings of dermatophytosis of the scalp, regardless of the etiological agent. It can facilitate the diagnosis, since it is a fast, noninvasive and inexpensive method. □

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