Hair Collar Sign Associated with Scalp Aplasia Cutis Congenita

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To the Editor:
The term “hair collar sign” was first introduced into the dermatological lexicon by Commens et al1 in 1989. The sign consists of a ring of long, dark, thick, and rough hair surrounding a congenital nodule of cystic, blister-like, or atrophic appearance located on the scalp. Histology reveals numerous horizontally oriented hypertrophic hair follicles emerging from the edge of the lesion. Drolet et al2 were the first to highlight the importance of the hair collar sign as a marker of spinal dysraphism. They proposed that its formation could be caused by cerebral herniation that would produce, early in embryonic development, abnormal shearing forces during formation of hair follicles, causing them to point outward from the defect. The proximity of the neuroectoderm, which expresses neural cell adhesion molecules, could also alter normal dermal-epidermal interactions, and as a consequence induce the development of large abnormal follicles.

We present the case of a newborn child from healthy parents. The mother was monitored during her pregnancy, had no adverse events, and had not taken medications. The delivery was vaginal, without the use of instruments. At birth, the child presented a rounded cutaneous defect with a diameter of 1 cm in the left parietal area, near the vertex. The defect was composed of an erythematous, slightly protruding lesion with an edematous appearance and covered by a fine, atrophic, translucent membrane. It was surrounded by abundant thick, dark, rough hairs that were horizontally arranged and oriented toward the periphery of the lesion (Figure 1). There were no palpable underlying bone abnormalities. The infant also presented a symmetric defect on both hands involving duplication of the thumb, which also presented syndactly (Figure 2). Ultrasound of the brain and through the fontanelle ruled out abnormalities of the bone or nervous tissue. We finally established...
A course on diagnosis in dermatological pathology was recently taught by Dr Requena and Dr Sánchez-Yus in Madrid, Spain, in which emphasis was placed on the importance of panoramic views of dermatological lesions for diagnosis. Some of the panoramic histopathological images shown in the course had been taken with a single-lens reflex camera directly focused on the slide. Our department is equipped with a DermLite FOTO37 dermatoscope coupled to a Nikon Coolpix 4500 camera, leading us to consider using that equipment with a histological specimen to obtain a good panoramic magnified view.

A dermatoscope is an optical system involving polarized light. The magnification ranges from 10x to 400x, or even more. The dermatoscope was designed to assist in the specific diagnosis of pigmented skin lesions, but has also been used in the diagnosis of other lesions, such as vascular, inflammatory, or parasitic lesions.1 In rheumatology, the dermatoscope is used by some specialists as a capillaroscope.2

The DermLite FOTO37 is a 10x dermatoscope that can acquire digital images when coupled to a digital camera.

We present a collection of histological images obtained with this digital photographic system using the steps listed below (Figures 1 and 2). First, we ensured that the dermatoscope, camera lens, and glass slide with the histological specimen to be photographed were clean. We then placed the glass slide with the histological specimen over a white, nonreflective surface, for instance,

References