



PAEDIATRIC DERMATOLOGY

HAIR CROSS SECTIONING IN UNCOMBABLE HAIR SYNDROME: AN EASY TOOL FOR A COMPLEX DIAGNOSIS

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Background: Uncombable hair syndrome (UHS) is a rare autosomal dominant genetic disorder characterized by a typical 'spun-glass' appearance of the scalp hair. Some authors prefer the Latin definition 'pili trianguli et canaliculi' to name this condition, because of the typical kidney-like or triangular appearance of hair at cross section. The longitudinal grooving or the less common triangular shape, thus rendering the hair rigid, could explain the physiopathology of this rare condition. UHS usually improves before puberty and parents should be advised to avoid excessive brushing and administer biotin supplements to speed improvement.

Observation: A 4-year-old presented with straw silvery blond unruly hair, that totally resisted all efforts to control it with a brush or comb. Hair density and quantity was normal and no fragility was observed. Trichoscopy showed longitudinal grooving of hair. On the basis of history, clinical and trichoscopic findings a diagnosis of UHS was suspected. Diagnosis had to be confirmed through scanning electron microscopy typically showing the aforementioned hair features, but it is an expensive technique and not so easy to propose in practice. Is there an easier, effective, and less expensive diagnostic tool?

Key message: One solution could be the atraumatic and non-invasive hair shaft cutting and subsequent histopathological examination of the cross-section, that characteristically shows longitudinal grooves in the hair shaft as well as a triangulated appearance. We encourage this diagnostic technique, because of its cost effectiveness, ease, and non-invasiveness for children.

