

Hair casts

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ABSTRACT

Hair casts or pseudonits are circumferential concretions, which cover the hair shaft in such a way that, it could be easily removed. They are thin, cylindrical, and elongated in length. We present an unusual case of an 8-year-old girl presenting with hair casts. Occurrence of these is unusual, and they may have varied associations. This patient was suffering from developmental delay. It is commonly misdiagnosed as and very important to differentiate from pediculosis capitis.

Key words: Hair casts, hair muffs, pseudonits, pediculosis capitis

An 8-year-old girl born of a nonconsanguineous marriage presented with asymptomatic, small, whitish thread-like lesions resembling nits attached to the scalp hair shafts since five years. They were easily removable with fingers [Figure 1]. They also reduced after washing hair, but without complete disappearance. The complaint involved the entire scalp. Itching was conspicuously absent and there was no history of hair loss. When the child was *in utero*, the mother had a history of fall that was further complicated by oligohydroamnios and premature delivery. Subsequently, the child was diagnosed with developmental delay. There was

no history of similar complaint in other family members. Examination of plucked hair under the microscope showed presence of thin, tubular accretions around the hair shaft.

Hair casts are circumferential concretions that encircle the hair shafts of the scalp.^[1] Few cases of hair casts have been reported in the literature. The condition has a female predominance. The exact pathogenesis is unknown. Psychological trauma has been found to be the associated in one patient.^[2] They may be associated with scaly scalp conditions or hair styling activity where tension is exerted on the hair.^[3] A case series citing the proposed role of *Propionibacterium acnes* colonization of the terminal hair follicle and possibly diffuse nonscarring alopecia was reported.^[4] In one case report, it was concluded



Figure 1: Greyish white concretions surrounding the hair

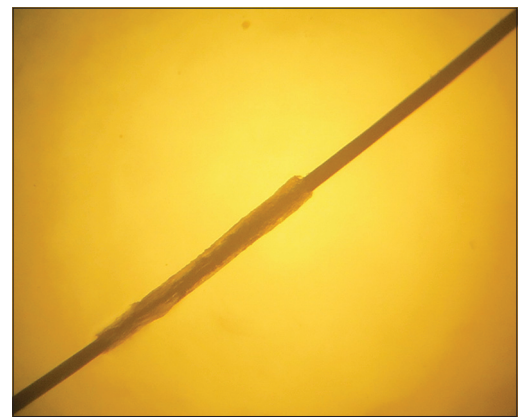


Figure 2: Circumferential keratin cast resembling a cuff around the hair shaft

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that patient had induced the condition through misuse of a deodorant body spray.^[5] It is found that the hair root sheaths do not disintegrate completely, stay on the shaft consistently during the growth period, and clinically become visible as cast.

On naked eye examination, it is easy to slide the cylindrical structure over the shaft and dislodge it. This helps to differentiate the casts from other conditions, such as true nits. Under the microscope, they are seen as tubular structures [Figure 2]. Electron microscopy studies could help to show their origin either from inner or outer root sheaths, or both. In pediculosis capitis or true nits are itchier, difficult to dislodge as they are attached to the shaft. It is of paramount importance to correctly differentiate hair casts from pediculosis.

Keratolytic or coal tar shampoos are ineffective. Retinoic acid 0.025% when combined with manual removal of cylinders with

a comb gives best result but in most cases, recurrence is seen after stopping medication.

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