

MATTING OF THE HAIR DUE TO CATIONIC DETERGENT

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A 27-year-old woman developed matting of her hair after using 5% cetrimide lotion for dandruff.

Key words : Matting, Hair, Plica, Cetrimide.

Plica is a condition in which the scalp hair become matted.¹ Idiopathic matting or felting of scalp hair is termed as plica neuropathica.¹ It was described first by Le Page² and later by other workers.³⁻⁵ This condition has also been observed in mentally disturbed persons.^{4,5} It develops slowly¹ and involves small areas in the beginning, while in most cases it is sudden in onset. The matting of hair has also been reported to be caused by surfactants, the most commonly reported surfactant being anionic detergent, sodium lauryl sulphate.^{6,7} We report a case of matting due to the cationic detergent cetrimide.

Case Report

A 27-year-old woman suddenly developed tangling of her hair 3 days ago after having used 5% cetrimide lotion, prescribed for dandruff. The patient applied it to her hair, rinsed them by rubbing and squeezing them under water. On drying, she noticed tangling of her hair especially in the occipital region of the scalp. Repeatedly washing her hair to unravel them only worsened the matting. It finally resulted in the formation of a ball-like matted structure. The patient had never used cetrimide in the past. There was no history of any previous disease of her scalp. She had never used bleaches, dyes or setting lotions. She was in good health. The scalp was free of infestation and infection. The

tangled hair were seen in the occipital, both temporal, vertex and frontal areas (Fig. 1). Attempts to separate the matted hairs resulted in their breakage. The hair otherwise were normal in texture. The microscopic examination was not done.



Fig. 1. Tangled hair in the form of a 'bird's nest'.

Comments

Matting of the hair may be caused by anionic detergent such as sodium lauryl sulfate^{6,7} or by the cationic detergent cetrimide.⁸ Bogaty and Dunlap⁹ proposed that matting of the hair is due to felting which is a physical process, in which wool and other animal fibres are compacted when exposed to friction in a liquid medium. The authors described the morphological changes accompanying felting.

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The human hair does not have scales similar to that of animal fibres and thus it is difficult to frame an exact cause of matting. Cetrinide which reduces the frictional co-efficient, may cause matting in the presence of mild structural defects in the hair and other predisposing factors mentioned above. These mild structural abnormalities of the hair are quite common since mild felting and tanglement do occur during routine hair care.⁹

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