

Drug that Causes Hair Loss and Promotes Hair Growth - A Review

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ABSTRACT

Hair is a major esthetic display feature of the human body, especially in social and sexual interactions. Diagnosis of hair diseases occurred as early as ancient Egyptian times and is one of the oldest medical disciplines. Today, hair loss or thinning, and hypertrichosis or hirsutism are common complaints in clinical dermatology, but patients seeking advice for their hair problem are not necessarily completely bald or overall haired. The difficult task in diagnosing hair and hair disorders is to distinguish between a true disorder and a subjective complaint and to analyze the underlying pathogenesis. Patients consult for focal or diffuse effluvium, non-scarring or scarring alopecia, changes in hair structure or color and hair graying. Establishing the correct diagnosis is the key feature of successfully managing a hair patient.

Keywords: Hair, hair diseases, scarring alopecia, hair graying, hypertrichosis.

INTRODUCTION

Hair is a protein filament that grows through the epidermis from follicles deep within the dermis. The fine, soft hair found on many nonhuman mammals is typically called fur; wool is the characteristically curly hair found on sheep and goats. Found exclusively in mammals, hair is one of the defining characteristics of the mammalian class [Al-Reza et al. 2009]. Hair is an epidermal appendage that lies within the dermis. Each hair emerges from a tubular invagination called a follicle. The follicle resembles a narrow pocket within the skin, as if a tiny finger had pushed the epidermis down into the Dermis and the underlying subcutaneous tissue. The lower extreme is penetrated by the Dermal Papilla an upward protrusion of connective tissue which produces microscopic cells of several kinds from which the hair is formed and developed by cellular elongation and keratinisation. Hair is closely associated with sweat gland and sebaceous gland activity [Al-Reza et al. 2010]. Each hair-producing follicle with its sebaceous gland is known as a pilo-sebaceous unit. The arrector pili muscle joins the wall of the follicle to the epidermis and is responsible for the erection of hairs and goose flesh during cold weather or emotional stresses [Ambasta et al. 2004]. The hair shaft is currently believed to be a dead structure composed of cells which die after leaving the dermal

papilla. As all follicles are established before birth no new ones are created thereafter. All characteristics are genetically determined. Their hairshaft - a keratinised structure composed of an outer cuticle (tile-like protective layer of keratinised cells) the cortex where cells are held firmly together, and an inner medulla where the cells are larger more loosely connected and partially separated by air spaces [Arase et al. 1991]. The hair is approximately cylindrical.

The hair can be divided into three parts length-wise-

1. The bulb, a swelling at the base which originates from the dermis
2. The root, which is the hair lying beneath the skin surface
3. The shaft, which is the hair above the skin surface.

In cross-section, there are also three parts-

1. The medulla, an area in the core which contains loose cells and airspaces
2. The cortex, which contains densely, packed keratin
3. The cuticle, which is a single layer of cells arranged like roof shingles [Bandaranayake et al. 2004].