



Androgenetic Alopecia

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The hallmark of androgenetic alopecia (AGA) is follicular miniaturization, the process by which hair shafts

In male patients, the process usually begins with bifrontal thinning, often with similar changes over the v

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Histopathology .

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□ Satisfactory evaluation of AGA can only be achieved from transverse sectioning

Diminution of follicular size, or miniaturization, is the histologic hallmark of AGA. To fully appreciate the m

interpretation of scalp biopsies, Headington also defined telogen hairs as having a shaft diameter of 0.030

However, slightly different definitions were used to subcategorize andro- specific alopecia. Using the

hairs should be grouped with the vellus hair population because more often they represent a transitional

It is easy to undercount the number of vellus hairs, even with horizontal sections . Some vellus hairs ma

The onset of AGA may be manifested by a telogen effluvium . Whiting found the telogen count in AGA to

In advanced AGA there may be a pattern of hair loss. It is with a progressive loss of follicles, fibrosis, and ultimately

Lymphocytic infiltrates, defined as activated T cells, has been linked to peripheral signs specifically the

seen more often in AGA than in normal individuals, the infiltrate is composed primarily of lymphocytes

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Pathogenesis

Androgens are the primary regulators of normal human hair growth. With the arrival of puberty, they

transform vellus hairs in many sites, such as the ~~axilla, the follicle, the~~ ^{axilla, the follicle, the} ~~areola, the~~ ^{areola, the} ~~chest, the~~ ^{chest, the} ~~pubic~~ ^{pubic} ~~area,~~ ^{area,} ~~the~~ ^{the} ~~scalp,~~ ^{scalp,} ~~and~~ ^{and} ~~the~~ ^{the} ~~beard.~~ ^{beard.}

A group of investigators found that the predominant form of 5 α -reductase in human scalp is type 1, conc

Other serum hormones, such as adrenal-derived dehydroepiandrosterone, may also be converted to DHT

Apoptosis is an important part of hair follicle regression, and therefore factors that affect apoptosis may

Whiting postulated that the process of miniaturization suggested the explanation of shorter follicles of the ca-

There is evidence that fibroplasia of the adventitia is a previously noted phenomenon in AGA and is also

There exists a physiologic rest period during which the posttelogen follicle remains empty. This

recently recognized phase of the hair cycle was termed *kenogen* . It may last longer and occur

with greater frequency in AGA