Chronic hair shedding

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A 45-year-old woman's chronic hair loss has resulted in a 50% diffuse decrease in the density of her hair. What is the cause of this hair loss?

A 45-year-old woman noted increased hair shedding that had developed over a four-year period. This had resulted in a 50% diffuse decrease in the density of the hair over her scalp, but it had not led to recession of her hairline or localised or patterned alopecia (Figure 1). Methodical collecting of the shed hair by the patient on a daily basis revealed a fluctuating degree of hair fall (Figure 2). Examination of these hairs revealed that they were all telogen clubs. The patient had no history of chronic illness and was not on any medications. The results of investigations, including a full blood count, iron levels, thyroid function and hormone levels, were normal.

Differential diagnosis

Diffuse hair fall may be due to a number of processes.

- **Senescent alopecia** presents as a diffuse decrease in hair density, but it is seen in an older population. The process is usually gradual but may be accelerated in later life. Hair loss is accompanied by greying and by miniaturisation and ultimate loss of hair follicles.
- **Chronic illness, malnutrition and drugs** may induce chronic diffuse hair shedding. Chronic iron deficiency and thyroid disease need to be particularly excluded because these may provide potentially reversible causes for diffuse alopecia and hair shedding.
- **Androgenetic alopecia** is often heralded by chronic hair shedding, but it usually presents as symmetrical pattern alopecia that induces thinning of the density over the vertex and bitemporal or frontal recession of the scalp. There is often relative sparing of the occipital region. Examination should provide the correct diagnosis. Scalp biopsy is useful because it reveals a decreased ratio of terminal to vellus hair follicles.
- **Chronic telogen effluvium** is the correct diagnosis. It has only recently been defined as a process seen particularly in middle-aged women, and more rarely in men. The hair shedding is often of sudden onset and the course fluctuates. Hair density is diffusely affected, and temporal recession may be present. Scalp biopsy reveals a normal terminal to vellus hair ratio but an increased telogen count. The hair pull test will reveal increased loose telogen hairs.

Figure 1. View of the scalp demonstrating retention of anterior hairline and cosmetically acceptable hair density.

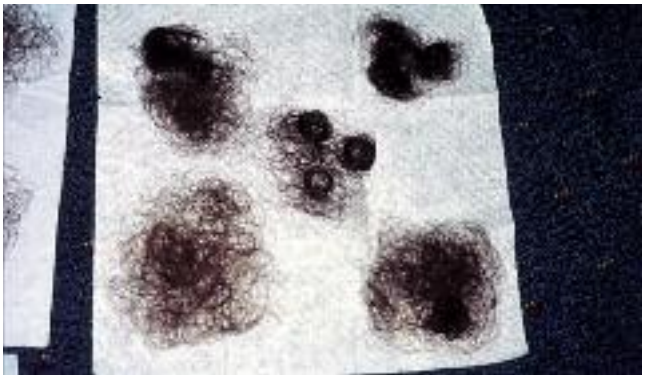

Figure 2. Daily samples of shed hair collected by the patient.

Treatment

In some patients, the distinction between androgenetic alopecia and chronic telogen effluvium may be difficult, particularly as the early stages of androgenetic alopecia may be dominated by telogen effluvium. In chronic telogen effluvium, after appropriate investigations, most patients can be reassured that despite the hair shedding they will retain a cosmetically acceptable amount of hair and that the process will stabilise. In cases that may represent early androgenetic alopecia, treatment such as 5% minoxidil lotion (Regaine Topical), cyproterone acetate (Androcur, Cyprone, Cyprostat, Procur) or spironolactone (Aldactone, Spiractin) may be indicated.

Keypoint

The degree of hair shedding may fluctuate owing to physiological changes in the hair cycle. This type of telogen effluvium may be chronic, but it will not necessarily progress to cosmetically significant alopecia. MT

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