

Male Pattern Baldness – Androgenic Alopecia

Hair follicles are programmed to miniaturize under post-pubertal androgens. This is a common disease in men; it's largely considered cosmetic. The top of the head (the crown) begins to thin. Eventually, hair loss predominates. **5-DHT** is implicated in the pathology. Initial therapy is with **Minoxidil** topically and **finasteride** orally. Women with hyperandrogenism can suffer as well; they're treated with **OCPs** (suppress ovarian production of hormones) and **spironolactone**.

Alopecia Areata

A systemic **autoimmune disorder against hair follicles**. It creates a **well-defined circular bald spot**. Also look for the exclamation **point** sign - small hairs within the bald-spot that appear to be floating because the hair shaft gets progressively narrower and loses pigment close to the scalp. The disease is treated with **steroids** – topical, intralesional, and systemic depending on severity.

Tinea Capitis

A superficial **fungal infection** caused most commonly by *Trichophyton tonsurans*. It also causes a **circular bald spot with all hairs at equal length**. A **KOH prep** must be ordered to visualize the fungus; *Trichophyton* **doesn't** fluoresce under Wood's Lamp. Treat with **oral Griseofulvin** (note NOT topical) – failure to do so will result in permanent hair loss.

Trichotillomania

A **psychiatric** disease whereby the patient compulsively pulls out hair one strand at a time. There is a high association with anxiety disorders (PTSD, OCD, MDD). The vignette will always give you a **woman**. Since she pulls hair out in different regions at different times, there'll be **patchy alopecia** with hair regrowth at **different lengths**. Diagnosis is made by shaving a "window" into her scalp and assessing equal hair growth within the window; the regrowing hair is too short to be plucked, hence it's allowed to grow. Treatment is to treat the compulsion (see psychiatry).

Traction Alopecia

Permanent **scarring** resulting in permanent **alopecia** that's secondary to keeping the hair **pulled tightly** (extreme braiding) that puts excessive traction on the root. This is **preventable** but **irreversible** once it occurs. RIP man buns.

Chemo

Chemotherapy targets rapidly dividing cells. This means the cancer (yay!) but also the gut (diarrhea), bone marrow (anemia, infection), and hair. Hair loss is expected, anticipated, and without treatment. **Anagen-effluvium** is when chemo disrupts growth, producing thin fragile hairs that shed with light touch, effectively skipping from anagen to exogen. **Telogen-effluvium** shifts anagen hairs to telogen; thinning the hair as the hair follicles exit growth phase too early.

