NEED HAIR: Pinpointing the cause of a patient's hair loss

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Telogen effluvium (TE)—temporary hair loss due to the shedding of telogen (resting phase of hair cycle) hair after exposure to some form of stress—is one of the most common causes of diffuse non-scarring hair loss from the scalp.[1] TE is more common than anagen (growing phase of hair cycle) hair loss.[2] Hair loss can be triggered by numerous factors, including certain psychotropic medications.[3,4] Mood stabilizers, such as valproic acid and lithium, are most commonly implicated. Hair loss also has been associated with the use of the first-generation antipsychotics haloperidol and chlorpromazine and the second-generation antipsychotics olanzapine, quetiapine, and risperidone.[5-7] We recently cared for a woman with bipolar I disorder and generalized anxiety disorder who was prescribed lurasidone and later developed TE. Her hair loss completely resolved 4 months after lurasidone was discontinued.

TE can be triggered by events that interrupt the normal hair growth cycle. Typically, it is observed approximately 3 months after a triggering event and is usually self-limiting, lasting approximately 6 months.[7] Diagnostic features include a strongly positive hair-pull test, a trichogram showing >25% telogen hair, and a biopsy showing an increase in telogen follicles.[8,9] To conduct the hair-pull test, grasp approximately 40 to 60 hairs between the thumb and forefinger while slightly stretching the scalp to allow your fingers to slide along the length of the hair. Usually only 2 to 3 hairs in the telogen phase can be plucked via this method; if >10% of the hairs grasped can be plucked, this indicates a pathologic process.[10]

Significant hair loss, particularly among women, is a distressing adverse effect that can be an important moderator of compliance, treatment adherence, and relapse. To help clinicians narrow down the wide range of potential causes of a patient's hair loss, we created the mnemonic **NEED HAIR**.

Nutritional: Iron deficiency anemia, a "crash" diet, zinc deficiency, vitamin B6 or B12 deficiency, chronic starvation, diarrhea, hypoproteinemia (metabolic or dietary origin), malabsorption, or heavy metal ingestion.[1]

Endocrine: Thyroid disorders and the early stage of androgenic alopecia.[8,11]

Environmental: Stress from a severe febrile illness, emotional stress, serious injuries, major surgery, large hemorrhage, and difficult labor.[12]

Drugs: Oral contraceptives, antithyroid drugs, retinoids (etretinate and acitretin), anticonvulsants, antidepressants, antipsychotics, hypolipidemic drugs, anticoagulants, antihypertensives (beta blockers, angiotensin-converting enzyme inhibitors), and cytotoxic drugs.[1,4-7]

Hormonal fluctuations: Polycystic ovarian syndrome and postpartum hormonal changes.[11]

Autoimmune: Lupus erythematosus, dermatomyositis, scleroderma, Hashimoto's thyroiditis, Sjögren's syndrome, inflammatory bowel disease, and autoimmune atrophic gastritis.[12,13]

Infections and chronic illnesses: Fungal infections (eg, tinea capitis), human immunodeficiency virus, syphilis, typhoid, malaria, tuberculosis, malignancy, renal failure, hepatic failure, and other chronic illnesses.[1,9]

Radiation: Radiation treatment and excessive UV exposure.[12,14,15]

Treatment for hair loss depends on the specific cause or triggering event. If you suspect that your patient's hair loss may be medication-induced, first rule out other possible causes by performing relevant investigations, such as a complete blood count, comprehensive metabolic panel, T3, T4, thyroid stimulating hormone, prolactin, and iron studies. If you determine the medication is the likely cause, safely taper and discontinue it, and consider an alternative agent.

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Telogen effluvium is typically observed approximately 3 months after a triggering event