

tainted cocaine (and more recently, heroin) can induce similar skin necrosis; however, the distribution tends to involve the ears and cheeks predominantly, with stellate or retiform purpura. Patients may have abnormal white blood cell counts and may be dual P- and C-ANCA positive.

Drug-Induced Hair Disorders • DRUG-INDUCED HAIR LOSS

Medications may affect hair follicles at two different phases of their growth cycle: anagen (growth) or telogen (resting). *Anagen effluvium* occurs within days of drug administration, especially with antimetabolite or other chemotherapeutic drugs. In contrast, in *telogen effluvium*, the delay is 2–4 months following initiation of a new medication. Both present as diffuse, nonscarring alopecia most often reversible after discontinuation of the responsible agent.

A considerable number of drugs have been associated with hair loss. These include antineoplastic agents (alkylating agents, bleomycin, vinca alkaloids, platinum compounds), anticonvulsants (carbamazepine, valproate), beta blockers, antidepressants, antithyroid drugs, IFNs, oral contraceptives, and cholesterol-lowering agents.

DRUG-INDUCED HAIR GROWTH Medications may also cause hair growth. Hirsutism is an excessive growth of terminal hair with masculine hair growth pattern in a female, most often on the face and trunk, due to androgenic stimulation of hormone-sensitive hair follicles (anabolic steroids, oral contraceptives, testosterone, corticotropin). Hypertrichosis is a distinct pattern of hair growth, not in a masculine pattern, typically located on the forehead and temporal regions of the face. Drugs responsible for hypertrichosis include anti-inflammatory drugs, glucocorticoids, vasodilators (diazoxide, minoxidil), diuretics (acetazolamide), anticonvulsants (phenytoin), immunosuppressive agents (cyclosporine A), psoralens, and zidovudine.

Changes in hair color or structure are uncommon adverse effects from medications. Hair discoloration may occur with chloroquine, IFN- α , chemotherapeutic agents, and tyrosine kinase inhibitors. Changes in hair structure have been observed in patients given