

## ad Item - Acquired Hypertrichosis

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**Abstract:** Doctor's resource on various forms of acquired general hairiness

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## ACQUIRED HYPERTRICHOSIS LANUGINOSA

### Introduction

This rare condition is characterised by the rapid growth of long, fine, downy lanugo hairs particularly over the face, but also on the body. It is a paraneoplastic phenomenon often seen late in the course of an internal malignancy, a so-called malignant down. The importance of this condition is that it may be the presenting sign of the malignancy and can appear up to two years prior to other manifestations. A hair growth factor produced by the tumour has been postulated but not identified.

### Clinical Features and Investigation

Acquired hypertrichosis lanuginosa has an age range of 19 to 69, with a female predominance of 3:1. The extent and degree of lanuginose transformation varies considerably. In early cases the growth of down on the forehead and temples is the only abnormality. In others the striking feature is the rapidity with which obvious hypertrichosis develops. Hair appears on the forehead, eyelids, nose, ears and torso giving the patient a simian appearance. The palms, soles, pubic regions and scalp tend to be spared. Balding scalps are rejuvenated by a dense growth of hair, albeit lighter and finer than the neighbouring hair. Hairs may grow as fast as 2.5cm per week and achieve a length of 15cm, but more commonly are about 1cm long.

Other cutaneous abnormalities that may coexist include keratotic lesions on the palms, soles and limbs, glossitis, acquired ichthyosis and acanthosis nigricans with tripe palms.

The malignancies most often associated with this condition are carcinoma of the lung, colon and uterus and lymphoma.

### Management

In order to detect an occult cancer a detailed history and examination, including rectal and pelvic examination with a PAP smear are required. This should be complemented by a full blood examination, a mammogram, colonoscopy and chest X ray. If available an abdominal and pelvic CT scans can be performed, however an abdominal ultrasound may suffice. If these investigations are negative, continued vigilance is required and a thorough examination should be repeated regularly.

Successful removal of the underlying cancer has resulted in regression of the hypertrichosis.

### Key points

Malignant down occurring on the face late in the course of a malignancy is common. Rarely the hypertrichosis pre-dates the diagnosis of the cancer. In these cases the rapid appearance of fine downy hairs on the body and face of an apparently healthy person should alert the physician to the probable presence of an occult malignancy.

## OTHER ACQUIRED SYNDROMES WITH PROMINENT HYPERTRICHOSIS

### Porphyria

Hypertrichosis occurs in all forms of porphyria except acute intermittent porphyria. It is most prominent in congenital porphyria, certain forms of acquired porphyria cutanea tarda (PCT) and erythropoietic porphyria. Photosensitivity plays a role, particularly as the hypertrichosis usually appears on the exposed sites such as the face and hands.

The facial hair is most prominent along the temples, cheeks, eyebrows and hairline and the hair is generally soft and pigmented. In blacks hypertrichosis is an important sign of PCT as blistering is uncommon.

The combination of photosensitivity, milia and scarring on the hands or face and hypertrichosis presents little diagnostic difficulty and requires a blood, urine and faecal porphyrin screen to confirm the diagnosis and elucidate the subtype. The absence of hypertrichosis in pseudoporphyria, epidermolysis bullosa acquisita, Hutchinson's summer prurigo, drug induced photosensitivity, chronic renal failure and frusemide therapy allow these clinical look-alikes of PCT to be distinguished.

### **Thyroid disease**

Diffuse hypertrichosis affecting the temples, back, shoulders and limbs occurs as a manifestation of congenital hypothyroidism and is often associated with converging eyebrows. It usually remits with thyroxine therapy. At puberty the pubic and axillary hair fail to develop. More usually hypothyroidism is associated with a diffuse alopecia of the scalp. In Grave's disease localised hypertrichosis can also occur over plaques of pretibial myxoedema.

### **Anorexia nervosa**

Malnutrition from malabsorption, starvation and anorexia nervosa can cause hypertrichosis of the limbs and trunk that in some cases is striking.

### **Drug induced hypertrichosis**

It is important to distinguish between iatrogenic hirsutism, where new hair occurs in a male sexual distribution from drug-induced hypertrichosis that is generalised. Minoxidil, diazoxide, phenytoin, cyclosporin A, PUVA, prednisolone, streptomycin, acetazolamide, benoxaprofen, penicillamine and fenoterol have all been reported to induce hypertrichosis in a proportion of users. The mechanism of hair induction is not known and the same mechanism is not involved in all cases.

Minoxidil and diazoxide are vasodilators that produce hypertrichosis in 80% of recipients predominantly over the face, shoulders, arms and legs. The hair falls out several months after cessation of therapy. Minoxidil is also active topically and has been used to treat androgenetic alopecia. The resultant hairs that appear on the scalp after oral minoxidil are often fine, poorly pigmented indeterminate type hairs of marginal cosmetic significance.

Cyclosporin A, an immune modulator may induce a switch from telogen to anagen in hair. In humans it produces a diffuse growth of hair across the shoulders, back, upper extremities, face, scalp, eyebrows and earlobes. It begins within a few weeks of taking cyclosporin in upwards of 60% of recipients. Hypertrichosis is more common in childhood and adolescence and reverses about one month after stopping treatment.

In about 10% of people receiving phenytoin an excessive growth of hair develops after 1 to 2 months across the extensor aspects of the limbs and subsequently on the face and trunk. It remits within a year of cessation of therapy. This hypertrichosis does not appear to be related to dose or duration of therapy.

Prolonged administration of cortisone can induce hypertrichosis that is most marked on the forehead, the temples and the sides of the cheeks. It also occurs on the back and the extensor surface of the arms. Steroid induced acne may be associated.

PUVA induces hair in exposed sites as does benoxaprofen following the induction of drug-induced photosensitivity. Penicillamine tends to produce lengthening and coarsening of hair on the trunk and limbs.

### **Head injuries**

Approximately four months after a severe head injury or encephalitis, children may experience a temporary generalised hypertrichosis. Neither the mechanism nor the cerebral structures affected by the injury have been determined.

Other conditions in which hypertrichosis has been reported include reflex sympathetic dystrophy in the affected limb, lichen simplex chronicus, overlying a bony fracture treated in plaster of Paris and juvenile dermatomyositis.

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