THIACETAZONE INDUCED HYPERTRICHOSIS

LAXMI V. NAIR * AND P. SUGATHAN †

Summary

Two cases of hypertrichosis secondary to thiacetazone are reported.

KEY WORDS : Hypertrichosis, Thiacetazone.

Drugs like streptomycin[1], dilantin[2], psoralen[3], penicillamine, corticosteroids[4], diazoxide[5] and chemicals like hexachlorobenzene[6] are known to produce hypertrichosis. Thiacetazone induced hypertrichosis, to our knowledge, has not been reported previously. We are reporting two such cases.

Case 1

An eight year old boy was brought with complaints of generalized hypertrichosis of two months' duration. At the age of seven he was diagnosed to be suffering from pulmonary tuberculosis on the basis of clinical and radiological findings. For eight months he was treated with intramuscular injections of streptomycin 0.5g biweekly and 75mg of isonicotinic acid hydrazide (INH) daily. Thereafter a combination of INH and thiacetazone (INH /5 mg and thiacetazone 37.5mg) was advised. Two months later, while on this treatment, the parents noticed insidious onset of generalized hypertrichosis in the child and brought him to hospital.

The boy was of poor build and nutrition and short statured. The vellus hair all over the body were replaced by coarse, dark hair, 1-2cm long (Fig. 1). There was no clinical or radiological evidence of tuberculous

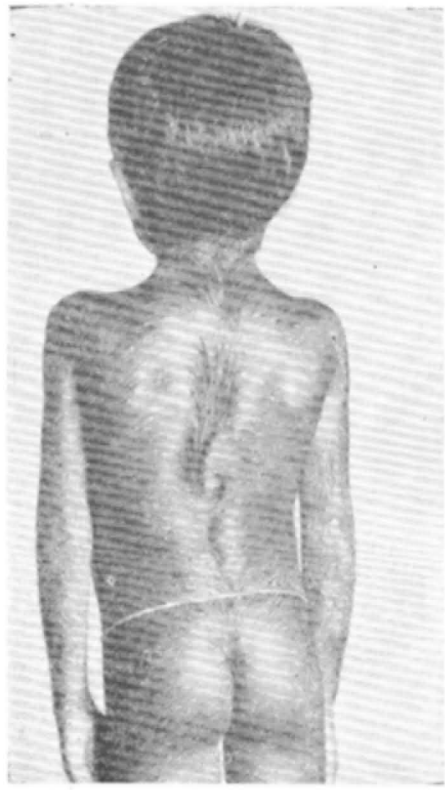

Fig. 1 They vellus hair replaced by coarse dark hair.

Correspondences :
* Assistant Professor in Dermatology & Venereology.
† Associate Professor,
Department of Dermatology & Venereology,
Medical College Hospital,
Calicut, Kerala-670008 India.

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activity. Tests for porphyrins were negative. All his siblings were normal. There was no family history of hypertrichosis.

Case 2

This was a two and half year old female child, who was noticed to be developing generalized hypertrichosis for two months when she was brought to hospital. The child was on treatment with INH 100 mg daily from the age of two years for an unresolved primary complex. After four months, treatment was continued with a combination of INH and thiacetazone. A month after starting this the mother noticed increased hair growth over the upper lip and cheeks of the child which rapidly spread on to the entire body.

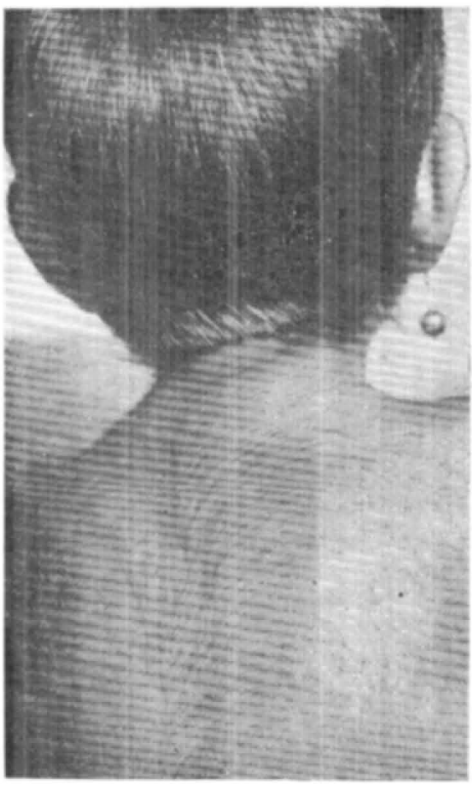

Fig. 2 Hypertrichosis on the back of the trunk.

In the past the child had been admitted to the hospital twice for recurrent episodes of cough, fever and breathlessness. No corticosteroids were prescribed on these occasions. Patient's mother had large coarse hair on her legs. Otherwise the family history was noncontributory.

The child was poorly built and nourished. She had generalized hypertrichosis (Fig. 2). Systemic examination and routine laboratory tests were normal.

Comments

Among the antituberculous drugs, only streptomycin is reported to have induced hypertrichosis. However, hypertrichosis may be seen in children suffering from tuberculosis who never had streptomycin therapy[7]. Hexachlorobenzene has caused hypertrichosis in cases of acquired porphyria induced by this chemical. These forms of porphyria areassociated with hypertrichosis. In both our patients hypertrichosis was observed only after the addition of thiacetazone to the treatment regime. It should be remembered that thiacetazone when used in the treatment of leprosy induces early regrowth of hair over the lesions[8].

The mechanism of drug induced hypertrichosis is not clearly understood. A powerful stimulus is necessary to initiate activity in a resting hair follicle. The natural stimulus for hypertrichosis is the androgens. The mechanism of androgen induced hypertrichosis may be through an increased free testosterone concentration of the serum[9] increased metabolic clearance rate[10] or an abnormal sensitivity of the hair follicle to the circulating androgens[11]. As there was no other visible evidence of androgenic activity in these patients it is presumed that thiacetazone or its metabolites have a direct action on the hair follicles or

has a potentiating effect on androgens normally present in the body. It would be worthwhile investigating the effect of thiacetazone and its metabolites on the hair follicle.

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