

neous biopsies, yielding 69 collision tumors.³ Cascajo and colleagues found 54 collision tumors of malignant cutaneous neoplasms associated with seborrheic keratoses in 85,000 biopsies.²

The most common combinations found by Boyd and Rapini included basal cell carcinoma and nevus (14), basal cell carcinoma and seborrheic keratosis (8), nevus and seborrheic keratosis (14), actinic keratosis and nevus (7), and basal cell carcinoma and neurofibroma (4).³ Another commonly described association is that of melanocytic nevus with desmoplastic trichoepithelioma.¹ Our patient had a compound tumor of congenital nevus and dermatofibroma. As far as we know, this is the first reported case of such a combination.

Furthermore this tumor clinically and dermoscopically mimicked malignant melanoma. Although in some cases dermoscopy can help with collision tumor diagnosis,⁴ this was not the case. In fact, according to Giorgi and colleagues cutaneous collision tumors are extremely difficult to diagnose preoperatively, even with the help of dermoscopy, in particular when one of the lesions is melanocytic.⁵ The presence of a pigment network, the pathognomonic sign of the melanocytic lesion, allows dermatologists to use dermoscopic algorithms, which in this case ended up in the wrong preoperative diagnosis of a malignant lesion.

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Acquired Generalized Hypertrichosis Due to Diazoxide[☆]

Hipertrichosis generalizada adquirida por diazóxido

To the Editor:

Hypertrichosis is defined as the excessive growth of hair on any part of the body.¹ In hirsutism, on the other hand, the hair follicles have different characteristics and an androgenic distribution. Clinically, hypertrichosis is classified according to its extension, as localized or generalized, and to its etiology, as congenital or acquired. The origin of acquired generalized hypertrichosis can be idiopathic, iatrogenic, or related to systemic diseases,² such as hypothyroidism, porphyria, celiac disease, dermatomyositis, human immunodeficiency virus (HIV) infection, or tumors. The widespread appearance of lanugo in the adult may be a sign of internal cancer or portend the onset of malignant disease; however, there have been no reports of such cases in children.³

We report the case of a 6-year-old boy who was referred to our outpatient clinic for the growth of terminal hair that had started to develop on the face, trunk, and limbs (Fig. 1) during his first year of life and had been slowly progressive. The patient had been diagnosed with hyperinsulinemic hypo-

glycemia of infancy at 5 months of age and was on treatment with diazoxide, 20 mg/kg/d, with adequate control. There was no family history of interest. He did not present growth retardation, neurological disturbances, or other typically relevant underlying diseases or treatments. Physical examination revealed widespread hypertrichosis, most marked on the forehead, upper lip, and eyebrows, which had started to develop some months after introduction of the full dose of diazoxide (Fig. 2). There was no predilection for sun-exposed areas. No other lesions were observed on the skin or mucosae and his teeth were normal. Blood tests including



Figure 1 Widespread increase of terminal hair on the trunk and upper limbs.

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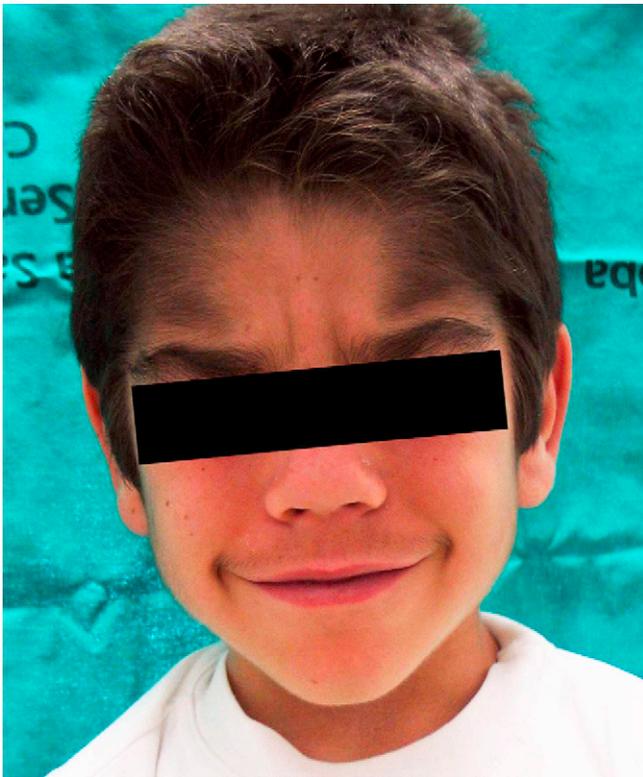


Figure 2 Hypertrichosis predominantly affecting the temporal regions, eyebrows, and upper lip.

a complete blood count, routine biochemistry, thyroid hormones, and lactate dehydrogenase as well as antiigliadin, antiendomysium, and antitransglutaminase antibodies were normal. HIV serology was negative. A diagnosis of acquired generalized hypertrichosis secondary to treatment with diazoxide was made on the basis of the above findings.

Iatrogenic acquired generalized hypertrichosis preferentially affects the temporal and frontal regions, the flexor surfaces of the limbs, and the trunk and is usually reversible after withdrawal of the causative agent. The drugs most frequently implicated are ciclosporin, phenytoin, and minoxidil. Diazoxide is an uncommon cause of generalized hypertrichosis,⁴ which develops in 1% to 20% of adults receiving this treatment. In children, however, this figure may reach 100%. This adverse effect appears to be related to the dose and to the duration of treatment. In adults, diazoxide is principally used to control episodes of malignant hypertension, whereas the most common indication in children is hyperinsulinemic hypoglycemia of infancy,⁵ in which it is used for maintenance treatment. This would explain the higher incidence of generalized hypertrichosis in children. The pathogenesis is thought to be related to activation of the ATP-dependent potassium channels. These

channels are present both on pancreatic cells and on cells in the hair follicles. A recent publication has described how drugs that act on these channels affect the anagen (growth) phase of hair follicles⁶: those that block the potassium channels, such as tolbutamide, shorten the anagen phase whereas agonists, such as minoxidil and diazoxide, lengthen this phase.⁷ Treatment is limited to cosmetic hair removal with topical agents or the use of photoepilation systems. The application of 11.5% eflornitine cream has been shown to be effective in the treatment of facial hirsutism and has been used off-label in patients with facial hypertrichosis.

In view of these findings, studies must be performed in any child presenting generalized hypertrichosis to exclude the systemic diseases listed above and to look for possible causative drugs; if such a drug is detected, the risks and benefits of changing or withdrawing the treatment must be evaluated.

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