ANTIHYPERTENSIVE THERAPY AND HYPERTRICHOSIS: A PROBABLE ASSOCIATION

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Case report. A 3-year-old boy with normal developmental milestones was evaluated for high-grade fever and altered sensorium, raising concern for meningoencephalitis. After initial management at a primary healthcare center, due to clinical deterioration, he was referred to a tertiary-care facility, where he required prolonged hospitalization, including intubation and mechanical ventilation. Hematologic investigations and cerebrospinal fluid analysis ruled out bacterial infection, suggesting a viral etiology. Brain imaging revealed bilateral leptomeningeal enhancement of the frontoparietal lobes, laminar cortical necrosis, and ischemic changes in the central pons – findings indicative of hypoxic injury secondary to meningoencephalitis –.

The child required multiple medications, including antiepileptics (levetiracetam), antispastics (baclofen), and prolonged antihypertensive therapy (amlodipine and enalapril) for persistent hypertension above the 99th percentile for age and sex. During hospitalization, a progressive generalized increase in hair growth over the face, trunk, and extremities was noted, which had not been present previously.

Clinical examination revealed coarse, thick, dark terminal hairs over the forehead, arms, and legs, with sparing of androgen-dependent areas, consistent with hypertrichosis (Fig. 1). No signs of virilization were present.

Given the medication history and the fact that levetiracetam is not commonly associated with hypertrichosis, baclofen-induced hypertrichosis was initially suspected; however, hair growth persisted and progressed despite its discontinuation. The temporal association with prolonged amlodipine and enalapril use raised suspicion for drug-induced hypertrichosis from these agents. No other drugs known to cause hypertrichosis had been administered.

Precocious puberty was ruled out due to the absence of axillary and pubic hair; routine endocrine and metabolic evaluations were unremarkable. The child remained clinically stable and was discharged with recommendations for long-term multidisciplinary follow-up. A marked reduction in hypertrichosis was observed after gradual tapering and discontinuation of amlodipine, followed by enalapril (Fig. 2).

Discussion. Hypertrichosis is characterized by excessive hair growth in areas of the body where hair is typically minimal or absent. Acquired hypertrichosis may result from certain syndromic conditions, endocrine disorders, or medications. The drugs most commonly implicated include phenytoin, minoxidil, diazoxide, cyclosporine, corticosteroids, psoralens, and acetazolamide (1). Our case describes generalized hypertrichosis in a child treated with amlodipine and enalapril. Amlodipine is a dihydropyridine calcium-channel blocker, and enalapril is an angiotensin-converting enzyme (ACE) inhibitor. Proposed mechanisms for drug-induced hypertrichosis include enhanced prostaglandin synthesis, increased vascular endothelial growth factor (VEGF), and augmented blood flow to hair follicles (2, 3).

Fig. 1

Fig. 2

Fig. 1, 2: Hypertrichosis involving the cheeks and the extensor surfaces of the upper and lower limbs (Fig. 1), with improvement after discontinuation of amlodipine and enalapril (Fig. 2)..

The patient developed hypertrichosis three months after initiation of amlodipine and enalapril therapy. According to available literature, only one case of hypertrichosis secondary to amlodipine and perindopril (another ACE inhibitor) exposure has been reported to date (1). This case highlights the rare occurrence of hypertrichosis in a child receiving combined therapy with a calcium-channel blocker (amlodipine) and an ACE inhibitor (enalapril). Although both medications are widely used and generally well tolerated in pediatric hypertension, recognition of uncommon adverse effects such as hypertrichosis is important to avoid unnecessary investigations and to guide appropriate clinical management.

Conclusion. The present case adds to the limited literature on drug-induced hypertrichosis in children and underscores the need for careful pharmacovigilance when prescribing antihypertensive medications in the pediatric population.

Conflicts of interest

The authors declare that they have no conflicts of interest.

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