

Palmar Hyperhidrosis in Children

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Abstract

Excessive sebaceous sweating in the palms is known as palmar hyperhidrosis. The incidence is estimated between 0.6 and 2.8 percent of the population. The disease is thought to be caused by localized sympathetic cholinergic fiber hyperactivity that passes through the upper stressful emotional conditions. Palmar hyperhidrosis has a negative impact on one's quality of life. The majority of treatment is symptomatic. Injections of *botulinum* toxin should be considered when topical therapy with aluminum salts, iontophoresis, and systemic anticholinergic are unavailable, failed, or regarded unacceptable. For the rare patient with intractable palmar hyperhidrosis who has failed to respond to traditional therapies, endoscopic thoracic sympathectomy may be considered.

Keywords: Iontophoresis; Sympathectomy; Botulinum toxin

Introduction

The condition of palmar hyperhidrosis is usually harmless. Excessive perspiration, on the other hand, social withdrawal, might cause humiliation, irritation and low self-esteem. Orientals from subtropical areas are more likely to get the condition. The gender ratio is approximately equivalent. In 30 to 50 percent of circumstances, a good family history can be elicited [1]. The hypothalamic sweat center that regulates the palms and soles is thought to be distinct from the rest of the hypothalamic sweat centers and controlled solely by the cerebral cortex without input from the thermo sensitive components. As a result, sweating on the palms and soles occurs infrequently during sleep or sedation, and it is not exacerbated in a warm atmosphere [2].

Diagnosis

The diagnosis is primarily clinical, based on the patient's medical history and physical exam. To determine the specific pattern and quantitative levels of sweating, employ the iodine-starch technique and the quinzarin powder dusting approach. Contact with water (sweat) causes calorimetric variations in both procedures. In most cases, laboratory tests aren't required [3].

Complications

Patients who are affected tend to avoid shaking hands. As a result, they may withdraw socially and have low self-esteem. Certain objects, such as pens, may be difficult for them to grasp. Additionally, the papers they hold may grow damp, and the metals they carry may rust. This may limit the types of tasks they are ready to fulfill [4]. Eczematous dermatitis can be worse by palmar hyperhidrosis. Patients who are affected are at risk of developing contact dermatitis and miliaria. Hyperhidrosis can cause skin maceration and make you more susceptible to bacterial and fungal infections.

Management

Palmar hyperhidrosis is a condition that can last a lifetime if it is not treated. As the activity of sebaceous sweat glands declines with age, the condition tends to improve in the fourth decade of life. Many commercial topical treatments are available for symptomatic therapy. Aluminum salts are found in the majority of them. The most often used "medical grade" active ingredients are Drysol and Hydrosal gel, which should be applied to thoroughly dry hands before bedtime [5]. These drugs work by obstructing the sweat ducts' apertures. Aluminum salts cause skin irritation most commonly in the axillae and seldom in the palms.

Iontophoresis works by delivering a moderate electrical current through the skin to block the sweat duct at the *Stratum corneum* level. Although iontophoresis with normal tap water has few negative effects, the need for regular, repeating treatments is a disadvantage. Aluminum chloride or glycopyrronium bromide can be added to the treatment to make it more effective. The success rate for hyperhidrosis of the palms or soles is around 80%.

In patients with excessive sweating, systemic anticholinergic such as glycopyrrolate and oxybutynin have been administered with varying degrees of success. Dry mouth, blurred vision, dizziness, constipation, and urine retention are some of the unfavorable side effects.

For the treatment of palmar hyperhidrosis, injections of botulinum toxin A or B into the palms have been demonstrated to be efficacious and safe. *Botulinum* toxins function by preventing the release of acetylcholine at the presynaptic level [6]. Pain at the injection site, dry skin, hemorrhage, and transient handgrip strength loss are all temporary side effects. The impact lasts about 6 months on average. Treatment with *botulinum* toxin might be costly; however it is covered by some private insurance plans.

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