Hyperhidrosis - 'Virtually non-invasive' management

by Peter Appel

Hyperhidrosis is a disease characterized by perspiration in excess of the physiologic amount necessary to maintain thermal homeostasis. It is divided into primary and secondary hyperhidrosis; the latter is usually local, affecting the soles, palms, and axillae in various combinations and with varying degrees of severity. Secondary hyperhidrosis can be generalized or local. In secondary hyperhidrosis the symptoms are a consequence of certain medical conditions, such as diabetes, or the use of certain drugs, e.g., nortriptyline. 2

Hyperhidrosis can have very significant effects on patients’ lives, causing physical discomfort, social embarrassment, and impacting negatively occupational and daily activities. Skin maceration from constant wetness can lead to bacterial and fungal infections, e.g., intertrigo and bromhidrosis [sweat smell].

Pathophysiology and epidemiology

Sweat glands in patients with hyperhidrosis are not histopathologically different from those in normal patients, nor is there an increase in the number or size of glands. The condition is caused by hyperfunction of the sweat glands rather than hyperthyroidism.4 A recent representative survey of 150,000 households in the US showed a prevalence of 2.8%. Of those with hyperhidrosis, only 38% consulted their physician about their excessive sweating.

The main treatment options available to patients with primary hyperhidrosis can be categorized as non-surgical (topical antidrosis) or surgical (e.g., thoracic sympathectomy). Antidirosis is considered by many as the first line of treatment for hyperhidrosis of the palms and soles.14

Although the mechanism of action in hyperhidrosis is currently not understood, there have been several theories.4

Topical Treatments

One or two applications containing aluminum chloride can control underarm sweating and odor. However, patients with moderate-to-severe hyperhidrosis need stronger therapies.4

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The advantage of using clear, tube-shaped containers containing aluminum chloride can be observed in the treatment of excessive sweating of the hands and feet. However, patients with moderate-to-severe hyperhidrosis need stronger therapies.4

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Topical Treatments

- Dimethylaminoethanol (DMAE) - An antioxidant that neutralizes free radicals and improves skin elasticity.

- Green tea extract - A powerful antioxidant that reduces inflammation and prevents oxidative stress.

- Niacinamide - Improves skin barrier function and reduces redness.

- Retinol - A form of vitamin A that promotes cell turnover and reduces signs of aging.

- Hyaluronic acid - A naturally occurring polymer that increases skin hydration and elasticity.

- Caffeine - Acts as a vasoconstrictor, reducing the appearance of pores and improving skin texture.

- Citrus extracts - Rich in vitamin C, these extracts help to brighten the skin and protect against environmental damage.

- Kojic acid - A natural skin lightening agent that helps to even skin tone and reduce pigmentation.

- Ferulic acid - A powerful antioxidant that protects against UV damage and improves skin firmness.

- Aloe vera - Provides hydration and soothes inflamed skin.

- Coconut oil - A natural moisturizer that helps to protect the skin from environmental damage.

- Evening primrose oil - Rich in gamma-linolenic acid, this oil helps to regulate oil production and reduce the appearance of fine lines.