



PIC QUESTION OF THE WEEK: 3/06/06

Q: What are the currently available treatment options for hyperhidrosis?

A: Hyperhidrosis is a condition characterized by hyper function of exocrine glands resulting in excessive sweating. The disorder affects approximately 3% of the worldwide population; however, half of those afflicted are never diagnosed or treated due to lack of awareness. Aside from the obvious sweating nuisance, hyperhidrosis disrupts quality of life as well (i.e. emotional well-being, relationship-building, etc.). Before one is diagnosed with this condition, secondary causes of hyperhidrosis must be ruled out. These include infections (HIV, tuberculosis, bacterial, fungal), malignancy (lymphomas, miscellaneous cancers), endocrine disorders (hyperthyroidism, hyperpituitarism, hypoglycemia, pregnancy, menopause), and neurological disorders (stroke, peripheral neuropathy, Parkinson's disease). Other causes of excessive sweating are angina, respiratory failure, anxiety disorders, esophageal reflux, drug or alcohol withdrawal, and medications. Drugs that increase sweating include antidepressants (duloxetine, fluoxetine, sertraline, bupropion, fluvoxamine, clomipramine, etc.), antihypertensives (doxazosin, sotalol), antipyretics (acetaminophen, aspirin), antipsychotics (clozapine), and miscellaneous agents such as rituximab, niacin, and pilocarpine. Therapeutic options for hyperhidrosis range from the application of OTC antiperspirants to surgical intervention. Aluminum salts are the most common antiperspirants in use and considered first-line therapy in hyperhidrosis. Most OTC antiperspirants contain aluminum chloride (AlCl_3). Prescription products with an increased concentration of AlCl_3 are DrySol® and Xerac AC®. Systemic anticholinergic agents such as benztropine, oxybutynin, and glycopyrrolate can be used; however, at doses required to control sweating, these agents cause adverse effects (constipation, urinary retention, dry mouth, visual disturbances, etc.) that are often intolerable. Botulinum toxin type A (Botox®) was approved by the FDA in 2004 for axillary hyperhidrosis and may be indicated when the disorder cannot be managed by topical preparations. Injections of Botox® block nervous system stimulation of exocrine glands. Disadvantages of this type of therapy include pain at the injection site and the need for repeated injections to maintain the desired effect. While generally not recommended, iontophoresis may be as effective as an antiperspirant for treating hyperhidrosis. In this procedure, a dermatologist uses a battery-operated device to introduce a low-level electric current to the affected area. This is thought to disrupt the gradient necessary for sweat production. Surgical intervention is a last resort for hyperhidrosis and includes removal of sweat glands and severing specific nerves that control perspiration.

References:

- Wells Q. Don't sweat it: epidemiology, pathophysiology, and treatment of hyperhidrosis. *Pharmacy Times* 2006;72(2):78-84.
- MedlinePlus. Hyperhidrosis. www.medlineplus.com (accessed 2006 Mar 2)

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