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Priority Updates from the Research Literature from the Family Physicians Inquiries Network

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Oral agent offers relief from generalized hyperhidrosis

An inexpensive and well-tolerated anticholinergic reduces sweating in those with localized—and generalized—hyperhidrosis.

PRACTICE CHANGER

Use low-dose oxybutynin as a first-line treatment option for patients with primary hyperhidrosis to improve symptoms and quality of life.[1]

STRENGTH OF RECOMMENDATION

B: Based on a single, good quality, randomized controlled trial.

Schollhammer M, Brenaut E, Menard-Andivot N, et al. Oxybutynin as a treatment for generalized hyperhidrosis: a randomized, placebo-controlled trial. *Br J Dermatol*. 2015;173:1163-1168.

ILLUSTRATIVE CASE

A 34-year-old woman presents to your office for unbearable sweating. She notes that the sweating occurs nearly daily on her hands, face, and in her axillary regions, causing social embarrassment. She has tried multiple antiperspirants to no avail. Is there anything she can take to reduce the sweating?

Hyperhidrosis is a common, self-limiting problem affecting 2% to 3% of the population in the United States.[2] Patients may complain of localized sweating of the hands, feet, face, or underarms or more systemic, generalized sweating in multiple locations. Either way, patients always note a significant impact on their quality of life.

Treatment of hyperhidrosis has traditionally focused on topical therapies to the affected areas. Research has shown that localized treatment with antiperspirants containing aluminum salt is effective by both subjective report and objective measurements at reducing sweating—particularly in the axilla, hands, and feet.[3,4] Additionally, a systematic review of observational and experimental studies found topical glycopyrrolate to be efficacious for craniofacial hyperhidrosis with minimal adverse effects.[5] The availability of low-cost prescription and over-the-counter aluminum-based antiperspirant agents makes topicals the first-line choice.

More invasive treatments are available for hyperhidrosis that is refractory to topicals. In a double-blind, randomized controlled trial, researchers injected either botulinum toxin type A (BTX-A) 50 U or placebo in patients with bilateral primary axillary hyperhidrosis.[6] Of the 207 patients who received treatment injections, 96.1% had at least a 50% reduction of axillary sweating at 4 weeks after one injection, as measured by gravimetric assessment. The BTX-A injections also produced a prolonged effect; mean duration between injections was 30.6 weeks.

Other invasive treatments include iontophoresis, surgery, and laser therapy; however, these methods are not suitable for body-wide application and are, thus, not appropriate for patients with generalized hyperhidrosis.

Oxybutynin is the first oral agent to emerge as a treatment option for hyperhidrosis. This cholinergic antagonist had historically been used to treat overactive bladder. As a cholinergic antagonist, oxybutynin not

only reduces urinary frequency, but also decreases secretions in various locations and, thus, can cause dry mouth and reduce perspiration.

In one prospective placebo-controlled trial, 50 patients with generalized hyperhidrosis were randomized to receive either oxybutynin titrated from 2.5 mg orally once daily to 5 mg orally twice daily or placebo for 6 weeks.[7] Seventeen (73.9%) patients receiving oxybutynin for palmar or axillary hyperhidrosis reported moderate to "great" resolution of their symptoms compared with 6 (27.3%) patients in the placebo group. Dry mouth was reported in 34.8% of patients receiving oxybutynin vs 9.1% of those who received placebo (P=.038); however, no patients dropped out of the study due to this adverse effect.[7]

STUDY SUMMARY

This multicenter, randomized controlled trial compared oxybutynin to placebo in 62 adults with localized or generalized hyperhidrosis from 12 outpatient dermatology practices in France. It is the first study to include patients with a localized, as well as a generalized form of the condition.

Patients were included if they were >18 years of age, enrolled in the National Health Insurance system in France, and reported a Hyperhidrosis Disease Severity Scale (HDSS) score ≥2. The HDSS is a validated, one-question tool ("How would you rate the severity of your sweating?"). Patients provide a score of 1 (no perceptible sweating and no interference with everyday life) to 4 (intolerable sweating with constant interference with everyday life).[8] Patients were excluded if they had any contraindications to the use of an anticholinergic medication.

Patients randomized to oxybutynin took 2.5 mg/d orally initially and increased gradually over 8 days until reaching an effective dose that was not more than 7.5 mg/d. They then continued at that dose for 6 weeks. The primary outcome was improvement on the HDSS by one or more points measured at the beginning of the trial and at 6 weeks. Secondary outcomes included change in quality of life, as measured by the Dermatology Life Quality Index (DLQI) and reported adverse effects. The DLQI is a dermatology-specific quality-of-life measure consisting of 10 questions. Scores range from 0 (where their disease has no impact on their quality of life) to 30 (maximum impact of their disease on their quality of life).[9]

Improved HDSS and DLQI scores. Most patients (83%) in the study had generalized hyperhidrosis. Patients were in their mid-thirties. Sixty percent of the patients in the oxybutynin group had an improvement of one point or more on the 4-point HDSS compared to 27% in the placebo group (P<.01). DLQI scores improved by 6.9 points in the oxybutynin group and 2.3 points in the placebo group (P<.01).

The most common adverse effect was dry mouth, which occurred in 13 patients (43%) in the oxybutynin group and in 3 patients (11%) in the placebo group (P<.01); it did not cause any patients to drop out of the study. The second most common adverse effect was blurred vision, which only occurred in the oxybutynin group (4 patients; 13%).

WHAT'S NEW

This is the first randomized controlled trial to demonstrate the efficacy of an oral agent for generalized primary hyperhidrosis. This trial used a relatively low dose of oxybutynin, which produced significant benefit while minimizing anticholinergic adverse effects.

CAVEATS

There are many situations for which anticholinergic medications are inappropriate, including use by geriatric patients and those with gastrointestinal disorders, urinary retention, or glaucoma.

CHALLENGES TO IMPLEMENTATION

Few if any challenges exist to the utilization of oxybutynin; inexpensive generic versions are widely available. JFP

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