

glands may at least partially explain how iontophoresis functions in patients with hyperhidrosis. The use of the tap water iontophoresis machines may not be necessary, since the tap water may just act as a conductor for current. Less bulky methods for iontophoresis and fewer resources may be required to effectively analyze hyperhidrosis.

► Palmar hyperhidrosis is a condition that can be an embarrassing nuisance to patients and difficult to treat. Many patients afflicted with this condition often have exacerbation with stress, heat, and other medical conditions. This is a study examining dry iontophoresis and its effect on anhidrosis. The authors observed the anhidrotic effects of dry iontophoresis in 6 patients with primary palmar hyperhidrosis with no other underlying medical conditions. Baseline sweating and self-rating using a 100-point visual analog scale were assessed. The results revealed that after application, there was a decrease in mean sweating compared with baseline ( $P < .001$ ). Limitations to this study include that there were no controls and the duration of anhidrosis after treatment was not discussed. Also, the authors did not explore whether the effects lasted during exacerbating circumstances. Although iontophoresis helped decrease sweating in this study, additional randomized controlled studies with larger cohorts of patients are needed.

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### **Iron deficiency in female pattern hair loss, chronic telogen effluvium, and control groups**

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*Background.*—The literature suggests that iron deficiency (ID) may play a role in female pattern hair loss (FPHL) or in chronic telogen effluvium (CTE).

*Objective.*—We sought to determine if ID is more common in women with FPHL and/or CTE than in control subjects without hair loss.

*Methods.*—This was a controlled study of 381 Caucasian women aged 18 years or older with FPHL or CTE seen in the Duke University Hair Disorders Clinic, Durham, NC, and 76 Caucasian women aged 18 years or older from the university environs who had no history or physical findings of hair loss (control subjects). All participants had to have at least a serum ferritin and hemoglobin reading and history of menopausal status.

*Results.*—When ferritin less than or equal to 15  $\mu\text{g/L}$  was used as the definition, ID occurred in 12.4%, 12.1%, and 29.8% of premenopausal women with FPHL ( $n = 170$ ), CTE ( $n = 58$ ), and control subjects ( $n = 47$ ), respectively, and in 1.7%, 10.5%, and 6.9% of postmenopausal women with FPHL ( $n = 115$ ), CTE ( $n = 38$ ), and control subjects ( $n = 29$ ), respectively. When ferritin less than or equal to 40  $\mu\text{g/L}$  was used as the definition, ID

occurred in 58.8%, 63.8%, and 72.3% of premenopausal women with FPHL, CTE, and control subjects, respectively, and in 26.1%, 36.8%, and 20.7% of postmenopausal women with FPHL, CTE, and control subjects, respectively. There was no statistically significant increase in the incidence of ID in premenopausal or postmenopausal women with FPHL or CTE versus control subjects.

*Limitations.*—The effect of correction of ID on hair loss is unknown.

*Conclusion.*—ID is common in women but not increased in patients with FPHL or CTE compared with control subjects.

► Iron deficiency (ID) has been suggested as a cause of hair loss, especially in females. This study sought to investigate whether ID was more common in women with female pattern hair loss (FPHL) or chronic telogen effluvium (CTE) compared with control subjects. This controlled study included 381 Caucasian women with FPHL or CTE and 76 Caucasian women with no history of hair loss. All participants were older than 18 years and underwent laboratory examinations including iron studies and scalp biopsies. In this study, the authors did not observe a higher prevalence of ID in premenopausal compared with postmenopausal women, regardless of which study group they were in (FPHL vs CTE vs control groups). However, the mean serum ferritin levels of all the premenopausal groups (CTE, FPHL, control) were much lower compared with the postmenopausal groups in this study ( $P < .005$ ), likely related to iron loss associated with menstruation. This study did not show any difference in the prevalence of ID between women with or without hair loss. One weakness of this study was that all patients were Caucasian, and iron deficiency may vary between races. Also, the exact definition of ID (or its severity levels) is problematic, and a selected subpopulation of patients may not be symptomatic. Ultimately, iron supplementation may be beneficial in reducing hair loss in some patients; however, well-documented evidence is lacking. In the future, well-designed, properly powered, placebo-controlled studies are needed, including assessment of variables including age, menstrual status, and ethnicity.

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### **Neurogenic Rosacea: A Distinct Clinical Subtype Requiring a Modified Approach to Treatment**

Scharschmidt TC, Yost JM, Truong SV, et al (Univ of California, San Francisco; Univ of Michigan, Ann Arbor; Los Angeles Med Ctr, CA; et al)  
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*Background.*—Rosacea occurs in four distinct clinical subtypes and three additional variants. The conditions of 14 patients with rosacea and prominent neurologic symptoms may represent another distinct subtype that requires a different approach to management.

*Methods.*—The patients had the classic features of rosacea combined with distinct neurologic symptoms and were identified during routine