## Correspondence

## Indomethacin treatment of generalized hyperhidrosis\*

To the Editor:

Case report. A 61-year-old woman complained of lifelong excessive generalized sweating. The condition had been getting worse for 4 to 6 months. The worst sweating occurred during sleep. She awoke between 4 and 6 A.M. with her sheets drenched in sweat,

On physical examination, she was obese with sweat dripping from her scalp, face, neck, shoulders, and upper trunk. Additional history, physical examination, x-ray studies, and blood studies ruled out diabetes, thyroid disease, tuberculosis, neurologic disease, brucellosis, lymphoma, dumping syndrome, drug or alcohol withdrawal, hypoglycemia, acromegaly, and carcinoid syndrome, all of which have been associated with this problem. The patient probably had thermoregulatory hyperhidrosis.

Over-the-counter antiperspirants and 20% aluminum chloride solution did not help her. Coincidentally, her family physician gave her indomethacin, 25 mg t.i.d., for arthritis. On the third day of this treatment, her hyperhidrosis improved. On the fourth day, it cleared

. A few days after discontinuing treatment, the hyperhidrosis returned. At a later time, she was again treated for arthritis with indomethacin. On the fourth day of treatment, the hyperhidrosis resolved.

It is not clear if the effect of indomethacin on hyperhidrosis is at the level of the hypothalamus or the eccrine sweat gland. Although it is unlikely that hyperhidrosis is an inflammatory condition, the benefit from indomethacin may indicate that prostaglandins are involved in part in sweat regulation.

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## REFERENCE

 Fitzpatrick TB, et al: Dermatology in general medicine. New York, 1979, McGraw-Hill Book Co., pp. 464-465.

## Jojoba oil

To the Editor:

oba oil is becoming a popular ingredient in many cometics, especially as a replacement for spermaceti (cetaceum). It is extracted from the beanlike seeds of

the jojoba bush, which grows wild in the deserts of Mexico and the southwestern states. It is now being grown commercially in North America and Israel. Mexicans and Indians have long used the bean's oily wax as a hair conditioner and skin lubricant. Since the interstate sale of oil derived from the head of the endangered sperm whale was banned in 1973, jojoba oil has been used increasingly as a substitute. It is now used as an ingredient in shampoos, moisturizers, sunscreens, and conditioners. Pure oil of jojoba is applied by many as a highly tauted over-the-counter treatment for "crow's-feet," wrinkles, stretch marks, dry skin, hair conditioner, etc. Since jojoba oil does not break down under high temperatures or pressures, it is also reputedly in demand as an industrial machine lubricant.

With the increase of its usage, it is well to be aware of its presence as a potential sensitizer. We have encountered contact dermatitis in individuals who used it on their scalps, either as a shampoo or hair conditioner, as well as in others who applied it to glabrous skin, either in creams or as pure oil. With its use as an industrial lubricant, cases of sensitivity will undoubtedly increase.

Of six individuals we observed suspected to be sensitive to jojoba oil, five developed erythema or erythema and vesicles on their forearms to covered patch tests with jojoba oil. For these tests, five muslin patches were prepared: (1) 20% jojoba oil mixed with 80% olive oil, (2) 20% jojoba oil with 80% liquidus petrolatum, (3) pure olive oil, (4) pure mineral oil, and (5) muslin alone. All five patients developed a positive reaction within 24 or 48 hours to jojoba oil in both the olive oil and mineral oil patches, whereas patches with pure olive oil, pure mineral oil, or muslin alone were negative. The sixth individual, suspected of being sensitive to jojoba oil used as a hair conditioner, did not develop any reaction on his forearm to these patch tests. However, on two subsequent "usage tests" of applying pure jojoba oil as a hair dressing, he again developed a contact dermatitis in his scalp on both occasions. Substituting mineral oil as a hair dressing did not produce any adverse reaction. As a control, twenty-eight patients with no known sensitivities were patch-tested with covered muslin soaked in pure jojoba oil, and no reactions were elicited when examined after 72 hours.

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