Dystrophy and Trauma? Think Subungual Cysts

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BALTIMORE — Nail dystrophy and a history of trauma should raise suspicion of subungual epidermoid inclusions, Dr. Beth S. Ruben said at the annual meeting of the American Society of Dermatopathology.

Dr. Ruben and her colleagues have encountered 17 such cases. Common clinical impressions included pachyonychia, hemorrhage, onychomycosis, or carcinoma.

"The fingers and thumb were involved more than the toes," she said. Fingers and thumbs were affected in nine cases, toes were affected in seven cases, and location was not specified in one case. "In some cases [12], there was nail dystrophy either clinically or histologically," said Dr. Ruben of the University of California, San Francisco.

In five cases, there was evidence of trauma. Calcification was noted in four cases.

Histologically, look for small, pale clusters of keratinocytes forming small cysts that resemble the follicular isthmus, or even ductal epithelium, and small, solid aggregates. Sometimes there might be an underlying bony abnormality, and there might be associated hyperkeratosis of the nail bed, she said.

Subungual cysts can be classified using a system developed by Italian investigators (Dermatologica 1989;178:209-12).

Type I inclusions are quite superficial. Nails might appear normal or exhibit clubbing. Less cystic variants can be mistaken for neoplasms.

Type II inclusions are more extensive. The nail bed might be hyperkeratotic. Cysts can be superficial or deep. The nail plate might be thickened. Most of the cases in the series reported by Dr Ruben were of the superficial type (type I).

The differential diagnosis should include subungual keratoacanthoma and onycholemmal carcinoma, Dr. Ruben said. ■

Current, Former Smokers More Likely to Go Bald

Cigarette smoking was significantly associated with androgenetic alopecia after investigators controlled for age and family history in a community-based survey conducted in Taiwan.

Androgenetic alopecia, the most common type of hair loss in men, is known to be a hereditary disorder, but environmental factors are presumed to play a role in pathogenesis as well. Three earlier studies addressed a possible link with cigarette smoking, but their results were inconsistent, the Taiwanese investigators wrote (Arch. Dermatol. 2007;143:1401-6).

Dr. Lin-Hui Su of Far Eastern Memorial Hospital and Tony Hsiu-Hsi Chen, Ph.D., D.D.S., of National Taiwan University, both in Taipei, surveyed 740 men from the general population aged 40-91 years who were found to have cosmetically significant male-pattern baldness.

After controlling for the effects of age and family history, they found that current and former smokers were significantly more likely to have moderate or severe androgenetic alopecia than were men who had never smoked (odds ratio 1.8). Men who currently smoked at least 20 cigarettes per day had more than double the risk of those who had never smoked (odds ratio 2.3).

Smoking intensity—defined as duration of smoking in years multiplied by the number of cigarettes smoked per day—was positively correlated with the degree of baldness.

Although this study did not assess the mechanisms by which smoking may promote hair loss, the investigators proposed four possibilities.

"First, smoking might be deleterious to the microvasculature of the dermal hair papilla. Second, smoke genotoxicants may do damage to DNA of the hair follicle," they said.

Third, smoking may cause an imbalance in the follicular protease or antiprotease systems. "Smoking-induced oxidative stress may lead to the release of proinflammatory cytokines that, in turn, results in follicular microinflammation and fibrosis."

Fourth, smoking may induce a hypoestrogenic state by increasing the hydroxylation of estradiol and the inhibition of aromatase.

—Mary Ann Moon