
OCTOBER IOTADERMA (#308)

We all are familiar with the whitish, often premalignant, patches called leukoplakia located on the oral mucosa. Do you know what malakoplakia is?

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Answer will appear in the *JAAD* Online section of the November issue of the journal.

SEPTEMBER IOTADERMA (#307)

Question: While suffering through organic chemistry we learned about chemicals such as methanethiol, isovaleric acid, butanes, and propionic acid among many others. How do such molecules relate to us in dermatology?

Answer: Methanethiol, isovaleric acid, propionic acid, and butane-2,3-dione are the major players amongst a number of compounds which produce the clinical problem we know as bromhidrosis (AKA, “stinky feet” or “stinky armpits”). They are chemicals produced by skin bacteria which thrive in warm moist environments, such as *Brevibacteria*, *Propionibacteria*, *S. epidermidis*, et. al. Such conditions allow the easy ingestion and breakdown of stratum corneum cells, as well as sweat and its constituent molecules, by these organisms.¹⁻³ The resultant bacterial byproducts are highly pungent, and produce odors ranging from vinegary to an intense sulfur stink. Treatments consist of minimizing the bacterial presence in the toe webs or on hyperhidrotic feet by means of continual dryness or topical antibacterial agents (or a combination thereof).⁴ Many of the chemicals causing the clinical condition are found in various delicious cheeses, however, and impart the distinctive smells and tastes of such.¹

REFERENCES

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3. Ara K, Hama M, Akiba S, et al. Foot odor due to microbial metabolism and its control. *Can J Microbiol*. 2006;52(4):357-364.
4. Leyden JJ, Kligman AM. Aluminum chloride in the treatment of symptomatic athlete's foot. *Arch Dermatol*. 1975;111(8):1004-1010.

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