Black Hairy Tongue

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A 65-year-old man was admitted with left lower-limb cellulitis and an impending abscess. He was a known case of type 2 diabetes mellitus, with hemoglobin A1c (HbA1c) 7.6%, and was started on intravenous piperacillin–tazobactam. Wound debridement was carried out under local anesthesia. At admission, he had stage 1 acute kidney injury as per Kidney Disease: Improving Global Outcomes (KDIGO) criteria, which improved with supportive measures. On the 6th day of therapy, his relatives noticed a black discoloration over his tongue (Fig. 1). Examination revealed a dark coating confined to the dorsal surface of the tongue, with sparing of the tip and lateral borders. There was no associated pain or burning sensation. A diagnosis of black hairy tongue (BHT) was considered, possibly related to piperacillin–tazobactam. The antibiotic was discontinued, and the patient was advised to maintain good oral hygiene and to brush the tongue gently. The discoloration resolved completely within 1 week of these measures.

Fig. 1: Black pigmentation and hypertrophy of filiform papillae of tongue

Black hairy tongue is a benign, self-limiting condition characterized by hypertrophy and elongation of the filiform papillae, giving a dark, "hair-like" appearance to the tongue. The pigmentation may vary from brown to black depending on keratin accumulation and microbial colonization. Both external factors (such as smoking, oxidizing mouthwashes, and poor oral hygiene) and systemic factors (including antibiotic exposure, immunosuppression, and diabetes) contribute to its development.[1]

Common antibiotics that are reported to cause BHT are doxycycline, erythromycin, metronidazole, and linezolid. Piperacillin–tazobactam has been reported only rarely as an offending agent. In this patient, the temporal relationship with drug exposure, absence of other predisposing factors, and prompt resolution after drug withdrawal strongly support a causal association. Diagnosis of BHT is clinical and relies on visual recognition of the characteristic tongue changes. Dermoscopy may assist in evaluating papillary morphology, though biopsy is seldom required unless the lesion appears atypical or suspicious for malignancy. Management primarily involves discontinuation of the offending agent, correction of local risk factors, and reinforcement of oral hygiene practices. The overall prognosis is excellent.[2]

Black hairy tongue associated with piperacillin–tazobactam is uncommon. Awareness of this benign and reversible drug reaction helps avoid unnecessary investigations and reassures both patients and clinicians. Regular brushing and withdrawal of the implicated drug usually lead to complete resolution within a few days.

References

1. Ren J, Zheng Y, Du H, et al. Antibiotic-induced black hairy tongue: two case reports and a review of the literature. J Int Med Res 2020;48(10):300060520961279.
2. Schlager E, St. Claire C, Ashack K, et al. Black hairy tongue: predisposing factors, diagnosis, and treatment. Am J Clin Dermatol 2017;18(4):563–569.

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