

Tongue hyperpigmentation associated with chemotherapy

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We demonstrate a new hyperpigmentation on the tongue of a 68-year-old female patient who was diagnosed with stage IIA infiltrating ductal carcinoma of the left breast who underwent modified radical mastectomy followed by a triple chemotherapy regimen which consisted of doxorubicin, docetaxel, and cyclophosphamide.

The patient developed the tongue hyperpigmentation a few weeks after the initiation of chemotherapy. She never had similar lesions in the past, nor had any involvement of other parts of the body, including palms, soles, trunk, nails, or scalp. A few months after stopping the chemotherapy, the patient had a remarkable improvement in her tongue discoloration.

Case discussion

Hyperpigmentation of the tongue following a treatment with chemotherapy has been previously reported (1–3). Both doxorubicin and cyclophosphamide have been noted to be the single culprit agent in several cases (4), whereas docetaxel has been associated with dark pigmentation of the nail (5).

The exact pathophysiology is still not well understood; it has been suggested that melanocyte-stimulating hormone (MSH) may be boosted by certain chemotherapy agents like doxorubicin (6), and that this may account for the higher prevalence of this side effect in dark-skinned patients.

It is usually self-limited and disappears a few weeks after treatment is completed.



References

- Blaya M, Saba N. Images in clinical medicine. Chemotherapy-induced hyperpigmentation of the tongue. New Engl J Med 2011; 10: e20.
- Vasudevan B. An unusual case of capecitabine hyperpigmentation: is hyperpigmentation a part of hand-foot syndrome or a separate entity? Indian J Pharmacol 2010; 42(5): 326–8.
- Abbasi NR, Wang N. Doxorubicin-induced hyperpigmentation. Dermatol Online J 2008; 10: 18.
- Casamiquela KM, Cohen PR. Chemotherapy-associated tongue hyperpigmentation and blue lunula. J Drugs Dermatol 2013; 12(2): 223–6.
- Dasanu CA, Vaillant JG, Alexandrescu DT. Distinct patterns of chromonychia, Beau's lines, and melanoderma seen with vincristine, adriamycin, dexamethasone therapy for multiple myeloma. Dermatol Online J 2006; 12(6): 10.
- Willem M, Munte K, Vrolijk JM, Den Hollander JC, Böhm M, Kemmeren MH, et al. Hyperpigmentation during interferon-alpha therapy for chronic hepatitis C virus infection. Br J Dermatol 2003; 149(2): 390–4.