



HYPERPIGMENTATION OF THE TONGUE WITH CANCER CHEMOTHERAPY: A CASE REPORT

S. Kumar^{1*}, A. K. Gupta² and S. P. Singh²

¹Pharmacovigilance Unit, GSVM Medical College Kanpur U.P, India.

²Department of Pharmacology & Therapeutics, GSVM Medical College Kanpur U.P, India.

* Corresponding Author: S. Kumar

Pharmacovigilance Unit, GSVM Medical College Kanpur U.P, India.

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ABSTRACT

This case recapitulate on rarely reported drug induced hyperpigmentation of tongue in a 35-year-old Indian female undergoing chemotherapy for breast cancer with cyclophosphamide, 5-Fluorouracil and epirubicin during clinical examination. In patient followup, fade in pigmentation of tongue was observed. Practitioner need to educate the patients about this possible side effect prior to the initiation of treatment & also report to nearest pharmacovigilance centre.

KEYWORDS: Tongue, Hyperpigmentation, Chemotherapy.

INTRODUCTION

Combination cancer chemotherapy is associated with cutaneous and mucosal side effects. Hyperpigmentation is a darkening of the skin- overall or localized. Hyperpigmentation of the tongue has been associated with several medications. A hyperpigmented tongue may result from increased melanin within the lingual mucosa.^[1] Pigmented spots in the oral cavity can occur due to variations in melanin, melanoid, reduced hemoglobin and carotene.^[2] Pigmentation caused by increased melanin may appear as small brown, black or gray and sometimes blue (depending on the concentration and location of the accumulated amount of pigment). In the case of hyperpigmentation induced by chemotherapeutic drugs, the mechanisms still remain to be clarified. Cancer chemotherapy drugs that cause hyperpigmentation include hydroxyurea bleomycin, doxorubicin, daunorubicin, 5-fluorouracil, cyclophosphamide and carmustine.^[3,4,5] Darkened patches on the tongue may be observed after one or two chemotherapy treatments. There is no specific treatment for hyperpigmentation. The hyperpigmentation begins to fade after chemotherapy is completed and usually disappears within weeks, months or years.^[6,7,8]

CASE REPORT

This case was considered medically important. Information was obtained from healthcare professional regarding a 35 year old female patient who received (second chemotherapy) inj. Cyclophosphamide 1 g i.v, inj. 5-Fluorouracil 1g i.v & inj. Epirubicin 100mg i.v for breast cancer- right (Post-operative), experienced black

pigmentation of tongue along with other adverse drug reactions-vomiting, oral mucositis & black pigmentation of nail. No relevant medical history. In followup reports-patient shows fading of black pigmentation of tongue. Cyclophosphamide, 5-Fluorouracil & Epirubicin are well reported with oral mucosal ulceration (mucositis), Vomiting and black pigmentation of nail & skin. Pigmentation of tongue is rarely reported with above combination of drug.



Figure1: Black pigmentation of tongue following Combination chemotherapy with Cyclophosphamide, 5 Fluorouracil and Epirubicin

CONCLUSION

Pigmentation of the tongue while on Cyclophosphamide, 5-Fluorouracil & Epirubicin treatment is a potential finding of which clinicians and health care workers in oncology should be aware. Awareness of chemotherapy complications is mandatory. Tongue hyperpigmentation can be a troubling side effect of chemotherapy. The function of the practitioner is to educate patients about

this possible side effect prior to the initiation of treatment. The practitioner should assure patients that this alteration will likely disappear within weeks to months after completion of treatment.

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REFERENCES

1. Kathleen M. Casamiquela BA and Philip R. Cohen MD. Chemotherapy-Associated Tongue Hyperpigmentation and Blue Lunula, 2013; 12: 2-2013.
2. Susser WS, Whitaker-Worth DL, Grant-Kels JM. Mucocutaneous reactions to chemotherapy. *J Am Acad Dermatol*, 1999; 40: 367-98.
3. Maryam B. Clinical Cases Severe Hyperpigmentation of Oral Mucosa, Skin and Nails Due to Breast Cancer Chemotherapy – Case Report. *Dent & Medic Prob*, 2015; 52(3): 363-365.
4. Abdollahi M, Radfar M. A review of drug induced oral reactions. *J Contemp Dent Pract*, 2003; 4: 10-31.
5. Rachel AP, Srinath MK, Ramesh MB. Dermatological adverse reactions to cancer chemotherapy. *Indian J Dermatol Venereol Leprol*, 2015; 81: 434.
6. Sanborn RE, Sauer DA. Cutaneous reactions to chemotherapy: commonly seen, less described, little understood. *Dermatol Clin*, 2008; 26: 103-19.
7. Abbasi NR., Wang N. Doxorubicin induced hyperpigmentation. *Dermato Online Jour*, 2008; 14: 18.
8. Blaya M, Saba N. Chemotherapy induced hyperpigmentation of the tongue. *New England Jour of Medi*, 2011; 365: 20.