

EUROPEAN JOURNAL OF PHARMACEUTICAL AND MEDICAL RESEARCH

www.ejpmr.com

Case Study
ISSN 2394-3211
EJPMR

CASE REPORT: SORAFENIB INDUCED CUTANEOUS EROSIONS: A RARE SIDE EFFECT

Dr. Aakanksha¹, Dr. Nita Kumari², Dr. Upasana Chauhan*³

¹Medical Officer, Dermatology, Civil Hospital, Bhoranj, Hamirpur. ²Medical Officer, Dermatology, Civil Hospital, Ghumarwin, Bilaspur. ³Medical Officer, Dermatology, Civil Hospital, Nagrota Bagwan, Kangra.



*Corresponding Author: Dr. Upasana Chauhan

Medical Officer, Dermatology, Civil Hospital, Nagrota Bagwan, Kangra.

Article Received on 10/04/2024

Article Revised on 30/04/2024

Article Accepted on 20/05/2024

ABSTRACT

Adverse skin reactions occur in 90% of patients treated with angiogenesis inhibitors. In some cases, a correlation has been observed between the severity of reactions and treatment efficacy and tumour response. Sorafenib is an orally active multi-kinase inhibitor which blocks both tumour cell proliferation and angiogenesis. The most common treatment-related cutaneous adverse effects are rash/desquamation (66%), alopecia (53%), stomatitis/pharyngitis (35%), dry skin (23%) and flushing (16%). The following case report focusses on a less reported side effect of the drug: cutaneous erosions.

INTRODUCTION

Sorafenib is an orally active multi-kinase inhibitor which blocks both tumour cell proliferation and angiogenesis. It inhibits tyrosine protein kinases such as vascular endothelial growth factor (VEGF) receptor-2, 3; platelet-derived growth factor receptor α, β; Raf kinase etc. This in turn leads to inhibition of tumour angiogenesis. It is a Food and Drug Administration (FDA) approved targeted therapy agent for hepato-cellular carcinoma (HCC), renal cell carcinoma (RCC), and gastrointestinal stromal tumour (GIST). The most common treatment-related cutaneous adverse effects are rash/desquamation (66%), alopecia (53%), stomatitis/ pharyngitis (35%), dry skin (23%) and flushing (16%). Other side effects commonly seen with the therapy include upper and lower gastrointestinal (GI) distress (ie, diarrhoea), fatigue, and

hypertension.^[1] The following case report focusses on a less reported side effect of the drug: cutaneous erosions.

CASE REPORT

A 55-year-old male patient presented to the dermatology OPD who was a known case of RCC with history of Sorafenib intake for the past 2 months. He presented with sudden development of painful, non-itchy lesions for the past 15 days on both legs, scrotum and shaft of penis. On dermatological examination, multiple erosions of size 0.2X0.2 cms to 0.5 X 0.5cms were seen on both legs (below knees), the penile shaft and scrotum in a background of erythema. A provisional diagnosis of Sorafenib-induced cutaneous erosions was made and the patient was prescribed mid- potency topical steroids. He improved after 5 days of treatment.







Figures 1-3: Multiple erosions of size 0.2X0.2 cms to 0.5 X 0.5 cms were seen on both legs (below knees), the penile shaft and scrotum in a background of erythema.

DISCUSSION

Adverse skin reactions occur in 90% of patients treated with angiogenesis inhibitors. In some cases, a correlation has been observed between the severity of reactions and treatment efficacy and tumour response. [2] Sorafenib has been found to be effective in the treatment of RCC, HCC, and GIST. However, we need to recognize the many adverse effects that are caused by Sorafenib. The cutaneous adverse effects seen with this drug are: handfoot skin reaction/HFSR), facial/scalp erythema/dysesthesias, nail changes, alopecia, rash/exanthems, cysts, eruptive keratoacanthomas, splinter subungual haemorrhage, pruritus and xerosis and eruptive nevi. [3] Increased awareness within the dermatologic community of the diversity, frequency, and treatment of Sorafenib-induced cutaneous adverse reactions will be helpful to patients who require chronic therapy with this medication for their cancers. Dermatological side effects of Sorafenib are often manageable with topical therapies and/or dose modifications.

REFERENCES

- Marcia S. Brose, Catherine T. Frenette, Stephen M. Keefe, Stacey M. Stein, Management of Sorafenib-Related Adverse Events: A Clinician's Perspective, Seminars in Oncology, 2014; 41(2): S1-S16. ISSN 0093-7754, https://doi.org/10.1053/j.seminoncol.2014.01.001.
- 2. Ara M, Pastushenko E. Antiangiogenic agents and the skin: Cutaneous adverse effects of sorafenib, sunitinib, and bevacizumab. Actas Dermosifiliogr [Internet], 2014; 105(10): 900–12. Available from: http://dx.doi.org/10.1016/j.adengl.2014.10.003
- Kim DH, Son IP, Lee JW, Lee HI, Kim BJ, Kim MN. Sorafenib (Nexavar®, BAY 43-9006)-induced Hand-foot Skin Reaction with Facial Erythema. Ann Dermatol, 2011 Feb; 23(1): 119-22. doi: 10.5021/ad.2011.23.1.119. Epub 2011 Feb 28. PMID: 21738381; PMCID: PMC3119991.