

HAND FOOT SYNDROME SECONDARY TO SUNITINIB- A CASE REPORT**Dr. Prajul Mehta¹ and Dr. Sakshi Bhota*²**¹Dermatologist, Civil Hospital Theog, H.P.²Junior Resident, Department of Community medicine, RPGMC, Tanda, H.P, India.***Corresponding Author: Dr. Sakshi Bhota**

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Article Received on 23/06/2021

Article Revised on 14/07/2021

Article Accepted on 04/08/2021

ABSTRACT

Hand-foot syndrome, also known as palmar-plantar erythrodysesthesias or Burgdorf reaction, is a common dermatologic reaction to certain anticancer therapies. It is characterized by palmoplantar dysesthesia that may progress to a burning pain followed by well-defined swelling, erythema and ulceration. There are few reports stating that sunitinib can produce a hand-foot skin reaction. We report a case of hand-foot skin reaction (HFSR) in a patient being treated with sunitinib.

INTRODUCTION

Hand-foot syndrome (HFS) is a well-described cutaneous adverse event of certain chemotherapeutic agents.

The multiple tyrosine kinase (MKI) inhibitor class of novel targeted therapies, including sorafenib and sunitinib, has emerged as an important cause of HFS. The multiple tyrosine kinase inhibitors related skin changes affecting the palms and soles differ from the ones caused by chemotherapy, the term HFSR is used when referring to the MKI-induced syndrome. HFSR affects 31.2% to 79.4% of patients using MKIs.^[1]

Sunitinib is one of the newer multi-kinase inhibitors (MKI), an important inhibitor of tumor angiogenesis, a selective inhibitor of vascular endothelial growth factor receptor (VEGFR)-2 and VEGFR-3, platelet-derived growth factor receptor (PDGFR)- β , Raf, FLT-3, and C-kit.^[2]

It is approved mainly for renal cell carcinoma, hepatocellular carcinoma, and gastrointestinal stromal tumor.

A variety of systemic, as well as, cutaneous side effects due to sunitinib have been described including the hand foot syndrome. The most critical period of HFSR development is during the first 5 weeks. The sunitinib induces endothelial-cell apoptosis in animal-tumor models, and pathologic changes observed suggest that dermal-vessel alteration and apoptosis might be due to direct anti-VEGFR or anti-PDGFR effects on dermal endothelial cells.^[3]

CASE REPORT

A 62 years old male patient presented with complaints of erythema with pain and burning sensations over the extremities. He had developed multiple blisters and hyperkeratotic plaques over dorsum of the hands and soles (Figure 1).

The patient was a known case of metastatic renal cell carcinoma and was undergoing treatment with sunitinib therapy since one month.

Based on history and clinical examination, a diagnosis of hand foot skin reaction was made. The patient was advised for dose reduction of sunitinib and was given paraffin, pyridoxine and topical steroids.



Figure 1: Shows erythema, hyperkeratotic plaques, erosions and blisters over dorsum of hands and feet.

DISCUSSION

Hand-foot syndrome, also known as palmar-plantar erythrodysesthesias or Burgdorf reaction, is a common dermatologic reaction to certain anticancer therapies.^[4]

The symptoms of HFSR includes paresthesia, tingling, burning or painful sensations on the palms and sole.

The diagnosis of HFSR is usually made from the clinical presentation, in those patients with a history of taking MKI drugs. The exact pathogenetic mechanism for HFS is not known, but the most commonly accepted one is the direct toxic effect on epidermal cells.^[5]

HFSR typically appears within the first 2 to 4 weeks of treatment initiation.

In the prodromal phase, the patient notices dysesthesia, which progresses over several days to burning pain; palms and soles become symmetrically erythematous and edematous. The inflammatory phase follows: A well-defined symmetrical erythema and tense bullae appear on the palms and soles. The hyperkeratotic phase is next: Localized well-demarcated painful yellowish hyperkeratotic patches overlies erythematous base pressure-bearing areas.^[6]

The main treatment for HFS is discontinuation of the offending drug and symptomatic treatment to provide analgesia, decrease edema, provide wound care, and prevent superinfection and also corticosteroids use.

Treatment includes topical emollient, antibiotics to prevent secondary infection, topical steroid, Vitamin B6 and discontinuation of the offending drug in severe cases.

Our patient had typical clinical presentation of sunitinib-induced HFS, showing direct temporal association.

Declaration of Patient Consent

The authors certify that they have obtained all appropriate patient consent forms. In the form the patient(s) has/have given his/her/ their consent for his/her/their images and other clinical information to be reported in the journal. The patients understand that their names and initials will not be published and due efforts will be made to conceal their identity, but anonymity cannot be guaranteed.

CONCLUSION

The awareness and early recognition are important in optimizing patient quality of life and minimizing unfavorable outcomes.

CONFLICT OF INTEREST

Nil.

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