Perforating folliculitis and hand-foot-skin reaction due to sorafenib

Stephanie Chapman
Anna Axelson

Follow this and additional works at: https://scholarlycommons.henryford.com/merf2020case
Perforating folliculitis and hand-foot-skin reaction due to sorafenib
Stephanie Chapman, MS, MD and Anna Axelson, MD Department of Dermatology Henry Ford Health System, Detroit, Michigan

Case presentation

• A 62-year-old African American woman presented with a painful rash on the extremities and feet ongoing for 2 months

• Her past medical history was as follows:
  • Hepatitis C virus infection treated with harvoni in 2018
  • Liver cirrhosis
  • Hepatocellular carcinoma (HCC) diagnosed 7 months prior to presentation, currently on sorafenib

• Painful rough, dark bumps erupted about 3 months after beginning treatment for HCC with sorafenib 400 mg BID

• She also had painful, yellow calluses on the bilateral plantar feet that erupted around the same time as the rash on the extremities

Physical Exam

• Scattered on the bilateral lower extremities and left upper extremity there were many small hyperpigmented papules with central keratotic plug and surrounding erythema (Figures 2 and 3)

• On the bilateral plantar feet there were thick hyperkeratotic, yellow and hyperpigmented plaques overlying the calcaneus and metatarsal phalangeal joints (Figure 4)

• The bilateral palms exhibited ill-defined erythematous patches

Diagnostic workup

• CMP was within normal limits

• Skin biopsies from keratotic papules on the right hip and right leg demonstrated a dilated hair follicle containing orthokeratotic and parakeratotic keratin and basophilic debris, consistent with perforating folliculitis (Figure 1)

Discussion

• Sorafenib is an oral multikinase inhibitor approved for the treatment of renal cell carcinoma, HCC, and thyroid cancer

• Sorafenib and other multikinase inhibitors are known to cause various adverse cutaneous reactions including hand-foot-skin reaction, which is different from hand-foot-skin syndrome, as well as inflammatory eruptions and alopecia

• Hand-foot-skin reaction is a painful complication characterized by hyperkeratotic plaques that develop over sites of pressure on the hands and feet, and are usually bilateral and symmetric

  • Treatment of mild cases includes use of emollients, keratolytic creams, and shoe inserts

  • Potent topical steroids may also be used, and severe cases necessitate dose reduction of the targeted therapy by at least 50%

• Hand-foot-skin syndrome is a separate condition which is under the broader category of toxic erythema of chemotherapy, and is caused by a variety of chemotherapeutic agents and manifests as well-demarcated erythema of the palms and soles with edema and dysesthesia in severe cases

• Perforating folliculitis is a more rare complication of sorafenib that has only been reported in a few case reports

  • The pathogenesis is unknown

  • Various treatments for perforating folliculitis have been tried including topical retinoids, topical steroids, and oral doxycycline with minimal efficacy

  • In one case, there was reported improvement with oral isotretinoin after five months

  • Perforating folliculitis usually improves after treatment cessation

References

