Received: 10 February 2020 | Accepted: 14 March 2020

DOI: 10.1111/dth.13315

DERMATOLOGIC THERAPY WILEY

LETTER TO THE EDITOR

Hidradenitis suppurativa associated with pazopanib

Dear Editor,

Pazopanib is a multitargeted, orally active small molecule exerting its effects through the inhibition of several tyrosine kinases, including vascular endothelial growth factor receptors (VEGFR-1, -2, -3), platelet-derived growth factor receptors (PDGFR-α and -β), fibroblast growth factor receptors (FGFR-1 and -3), and cytokine receptor (cKIT).[1] It is approved by the Food and Drug Administration for treatment of advanced renal cell carcinoma and advanced soft tissue sarcoma. The most common adverse events are diarrhea, hypertension, hair color changes, nausea, anorexia, and vomiting. To the best of our knowledge, hidradenitis suppurativa has never been reported in the English-language literature associated with pazopanib.

A 54-year-old Caucasian man diagnosed with renal cell carcinoma stage T2aN0M0 was successfully treated with radical nephrectomy in 2014. One year later, he had local recurrence, and computed tomography showed metastases in the lung. Pazopanib was started as first-line therapy (400 mg oral daily dose). Erythematous, violaceous papules and pustules on the mons pubis were documented a few weeks after commencing the drug. The lesions were first described as papular eruption due to pazopanib. Topical clindamycin therapy was begun. After 3 months, new lesions appeared in the anal area in addition to the inguinal area (Figure 1). A punch biopsy was performed with differential diagnosis of folliculitis and hidradenitis suppurativa. Histopathological examination was consistent with hidradenitis suppurativa. There were no lesions at other locations besides the anal and inguinal areas. Since the development of the new lesions and the complaint of the patient, 600 mg of oral clindamycin and 600 mg of rifampicin daily were started. This treatment was followed by marked improvement in his hidradenitis suppurativa, and antibiotics were stopped after 12 weeks.

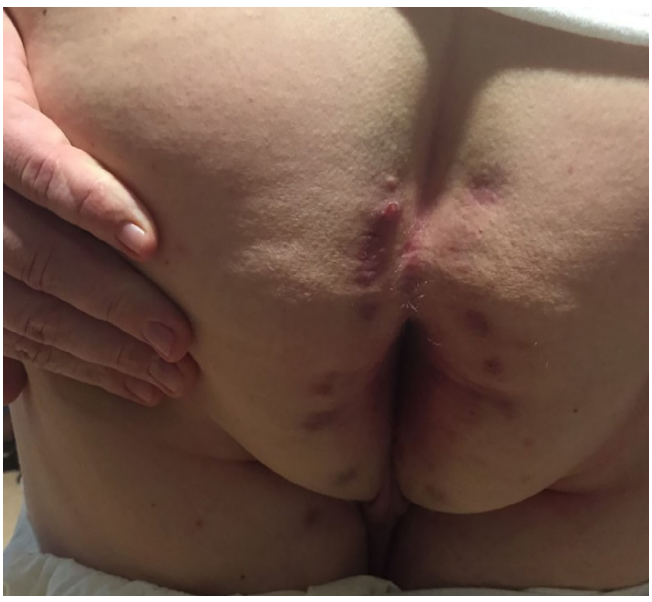

FIGURE 1 New lesions appeared in the anal area

Rare cutaneous eruptions with pazopanib were profound in hair and skin hypopigmentation. The mechanism was believed to be the combination of c-kit and PDGF inhibition.[2] The clear temporal association between the development of hidradenitis suppurativa (HS) lesions upon pazopanib initiation suggests that our patient's HS was triggered by pazopanib. Classic HS within the skin folds of the groin and anal area has not been previously associated with pazopanib. The mechanisms behind sorafenib-induced cutaneous toxicities remain unclear but have been associated with blockade of PDGF and KIT, the receptor for stem cell factors in the eccrine gland epithelium and antagonism of VEGFRs in subcutaneous vessels, which may lead to impaired cutaneous regeneration and healing.[3]

Hyperkeratinization of the follicle infundibulum is believed to play a central role. Secukinumab, Sorafenib, and FOLFOX chemotherapy has been associated with the development of HS in the literature.[4,5]

To our knowledge, this is first description of pazopanib-associated HS in the inguinal and anal areas. We encourage clinicians to be aware of the potential correlation between pazopanib and HS and recommend further studies to explore this association.

CONFLICT OF INTEREST

None.

ETHICAL APPROVAL

Present.

Fatma P. Cengiz[1]
Osman Kelahmetoglu[2]

[1]*Department of Dermatoveneorology, Bezmialem Vakif University, Istanbul, Turkey*
[2]*Department of Plastic Surgery, Bezmialem Vakif University, Istanbul, Turkey*

Correspondence
Fatma P. Cengiz, Department of Dermatology, Bezmialem Vakif

University, Istanbul 34710, Turkey.
Email: fpelinozgen@hotmail.com

ORCID

Fatma P. Cengiz https://orcid.org/0000-0003-0669-6232
Osman Kelahmetoglu https://orcid.org/0000-0002-6651-2872

REFERENCES

1. Kasper B, Hohenberger P. Pazopanib: a promising new agent in the treatment of soft tissue sarcomas. *Future Oncol*. 2011;7:1373-1383.
2. Sideras K, Menefee ME, Burton JK, Erlichman C, Bible KC, Ivy SP. Profound hair and skin hypopigmentation in an African American woman treated with the multi-targeted tyrosine kinase inhibitor pazopanib. *J Clin Oncol*. 2010 Jul;28(19):e312-e313.
3. Zhang L, Zhou Q, Ma L, Wu Z, Wang Y. Meta-analysis of dermatological toxicities associated with sorafenib. *Clin Exp Dermatol*. 2011;36:344-350.
4. Navarro-Triviño FJ, Sanchez-Parera R, Ruiz-Villaverde R. Secukinumab-induced paradoxical hidradenitis suppurativa. *Dermatol Ther*. 2020;33(1):e13150. https://doi.org/10.1111/dth.
5. Morse DC, Chockalingam R, Pye A, Huen A. Hidradenitis suppurativa associated with sorafenib initiation. *Dermatol Online J*. 2019;25(6):1-3.