

Painful scrotal rash from cabozantinib

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Learning Objectives

- Scrotal rash is an adverse effect of cabozantinib, an inhibitor of vascular endothelial growth factor receptor 2, c-MET, and RET multitargeted tyrosine kinase¹.

Case Presentation

HPI: 70-year-old patient with stage IV hepatocellular carcinoma (HCC) presented to the ED with 6 weeks of painful scrotal rash. Cabozantinib was started three months prior for HCC.

Physical exam: Well-demarcated superficial ulceration of the scrotum with hemorrhagic and purulent crust with eroded plaques on bilateral medial thighs (Figure 1).

Vitals: Hemodynamically stable and afebrile.

Labs: Unremarkable on admission.

Imaging: CT abdomen on admission with interval increase in size of known metastatic HCC.

Ultrasound of the perineum was unremarkable.

Pathology: Basilar hydropic degeneration, epidermal dysmaturation, diminished granular cell layer, confluent parakeratosis, and rare subcorneal neutrophils.

Hospital Course

Broad-spectrum antibiotics, antivirals, and steroids were trialed with modest improvement (Figure 2) in rash. Pain was managed with IV opioids. The patient died on hospital day 17 from AHRF after electing for comfort care for stage IV HCC.

Figures:



Figure 1.
Scrotal rash on hospital day 1.



Figure 2.
Scrotal rash on hospital day 3.

Discussion

- Scrotal rash is a known adverse effects of cabozantinib, with one study finding an incidence of 15%¹.

Adverse Effect	Patients, No. (%)	Median Onset After Drug Initiation, wk
Hand-foot skin reaction	22 (54)	4.0
Pigment dilution/hair graying	18 (44)	11.4
Xerosis	8 (20)	5.1
Scrotal ulcer/erythema/edema	6 (15)	5.3
Splinter hemorrhages	5 (12)	NA

- Drug's inhibition of VEGF, c-MET, and AXL leads to disruption of endothelial function and impaired vascular repair, leading to ulceration in areas of high vascularity and those prone to friction^{1,2}.

Conclusions

- Management involves cabozantinib interruption and supportive approaches with topical steroids, emollients, and analgesia^{1,2}.

Works Cited:

- Zuo RC, Apolo AB, DiGiovanna JJ, et al. Cutaneous Adverse Effects Associated With the Tyrosine Kinase Inhibitor Cabozantinib. *JAMA Dermatol.* 2015;151(2):170. doi:10.1001/jamadermatol.2014.2734
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