

# Adding insult to extravasation injury: recall dermatitis after extravasation injury for a novel conjugate chemotherapy

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## Learning Objectives

- 1) Extravasation of antibody-cytotoxin drug conjugates including ADCT-901 can be a trigger for recall dermatitis
- 2) Dermatologists should recognize chemotherapy extravasation-induced recall reactions for timely coordination with oncologists and treatment with topicals

## Background and Case

- Recall dermatitis induced by chemotherapy, also known as recall phenomenon, is a reaction in which patients receiving chemotherapy develop inflammatory reactions in areas affected by prior tissue injury<sup>1,2</sup>
- A 41-year-old man with refractory Stage IV cholangiocarcinoma was enrolled to start Antibody-drug conjugate (ADCT) 901-101 through a clinical trial
- During his first ADCT 901 infusion a peripheral intravenous (IV) catheter ruptured his vein
- Five days later, he had worsening redness, tenderness, and itchiness of his arm and developed an edematous pink plaque with two ruptured bullae



- Upon seeing dermatology, he started vinegar soaks, desonide 0.05% ointment, and mupirocin 2% ointment to eroded areas
- He transiently discontinued ADCT 901 and noted improvement with topicals



- One month later, he received his second infusion through a central line and noticed worsening pain, increasing erythema, and enlargement of his rash



- The patient then started triamcinolone 0.1% ointment to the plaque two days before each infusion and continued until the redness improved

## Discussion

- Extravasation reactions vary in duration and extent, ranging from mild induration and pain to bullae formation and destruction of deeper structures
- Smaller veins, lymphedema, drug concentration, pH, and potential for vasoconstriction modulate reaction severity
- When our patient's forearm rash improved with topicals and worsened in edema and tenderness after his second infusion, we suspected that the re-infusion triggered sensitized skin that had experienced prior injury<sup>3,4</sup>
- To our knowledge, this is the first case reporting a recall phenomenon to ADCT 901, a novel monoclonal antibody-cytotoxic drug conjugate under study for recalcitrant solid tumors<sup>5</sup>
- The cytotoxin SG3199 is a pyrrolobenzodiazepine (PBD) dimer which binds to the minor groove of DNA and produces interstrand cross-links, similar to cisplatin derivatives which are studied triggers for radiation recall<sup>6</sup>
- We treated our patient similarly to other cases of chemotherapy recall dermatitis, including topical steroids and supportive care<sup>3</sup>

## References

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# Disclosures

Disclosures: None

All authors have no relevant disclosures