ACG CASE REPORTS JOURNAL

IMAGE | LIVER

Telaprevir-Induced DRESS Syndrome Associated With *Salmonella typhi*

Tarık Akar, MD,[1] Beyza Kilavuz, MD,[1] Dilek Malkoç, MD,[1] Gökhan Dindar, MD,[1] and Aynur Aynioğlu, MD[2]

[1]*Department of Gastroenterology, Bulent Ecevit University School Of Medicine, Zonguldak, Turkey*
[2]*Department of Infectious Diseases, Bulent Ecevit University School Of Medicine, Zonguldak, Turkey*

Case Report

Treatment of hepatitis C virus (HCV) infection has changed with the advent of directly acting antiviral agents such as sofosbuvir and ledipasvir, but telaprevir (TVR)-based triple therapy is still used in many developing countries. DRESS syndrome is an adverse reaction of TVR therapy that typically presents with skin rash, eosinophilia, and fever, and can be life-threatening if unrecognized.[1]

We present a case of a 48-year-old woman with HCV-related cirrhosis who presented with severe generalized plaque-like pruritic rash over a period of 2 weeks. The rash began during the 8th week of treatment with TVR-based triple therapy. Although TVR discontinuation was strongly recommended, the patient insisted on completing the 12-week regimen. During the 13th week, hospitalization was required due to aggravated pruritic skin rash (Figure 1), diarrhea, severe anemia (hemoglobin 6.7 g/dL), leukopenia (WBC 2,000/mm^3/mL), eosinophilia (11%), and fever. Punch biopsy of the skin revealed superficial perivascular dermatitis (Figure 2). The patient was diagnosed with TVR-induced drug rash with eosinophilia and systemic symptoms (DRESS) syndrome, and the diagnosis was supported as "probable" with the Naranjo score (7 points) and as "definite" with the European Registry of Severe Cutaneous Adverse Reactions (RegiSCAR; 6 points) criteria. Fevers persisted for 8 days, and blood cultures grew *Salmonella typhi*. The rash was treated with topical steroids, moisturizer, ciprofloxacin, and oral H1 and H2 receptor blockers. Systemic steroids were not used due to concern that this could precipitate severe systemic infection. The patient was discharged on day 28 of admission with resolution of rash and symptoms.

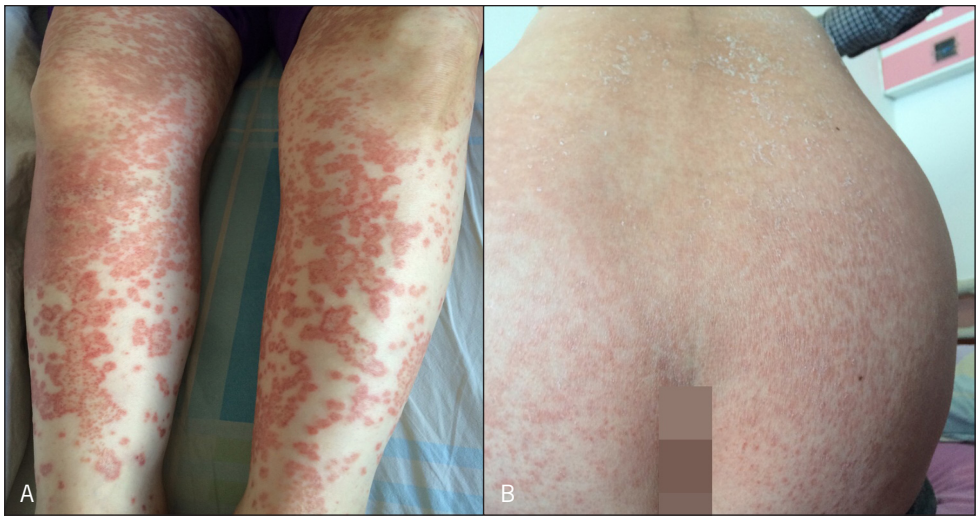

Figure 1. Diffuse maculopapular confluent rash involving >80% of body surface area and target lesions suggesting DRESS syndrome in the (A) lower extremities and (B) back.

ACG Case Rep J 2015;2(2):79-80. doi:10.14309/crj.2015.10. Published online: January 16, 2015.

Correspondence: Tarık Akar, Carl R. Tersane Yapı Koop. A2 Blok D6 Zonguldak/Turkey (drtarikakar@gmail.com).

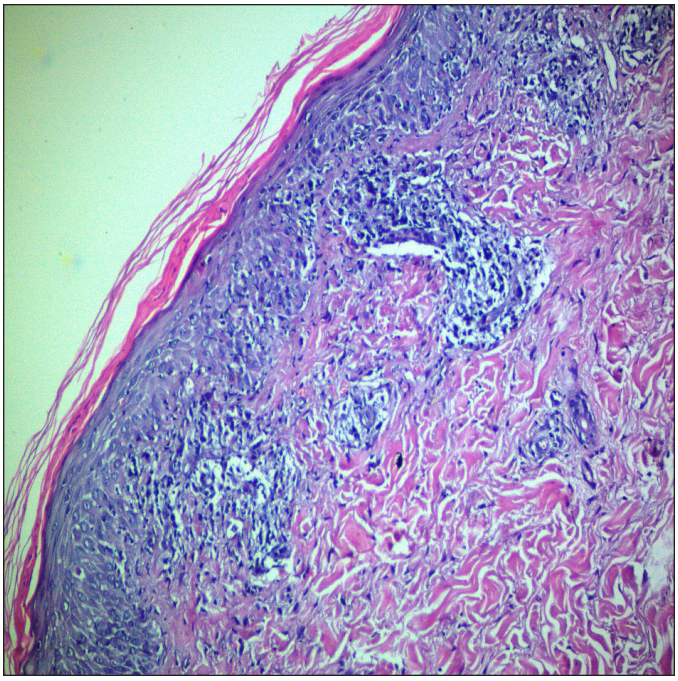

Figure 2. Prominent perivascular dermatitis involving mature plasmocyte, lymphocytic, and rare eosinophils.

Dermatological side effects can frequently exist during treatment of HCV, though most are easily managed. Severe skin conditions such as DRESS and Stevens–Johnson syndrome can occur, and can be fatal if unrecognized or unmanaged.[2] DRESS syndrome is described as systemic symptoms with severe skin reaction, fever, multi-organ involvement, and eosinophilia. The cutaneous lesions manifest approximately 6-8 weeks after drug administration, and have a delayed resolution (more than 15 days) despite the withdrawal of the culprit drug. The diagnosis can be made using Naranjo and RegiSCAR scoring criteria of "no," "possible," "probable," or "definite" cases. Skin rash biopsy is not specific, but useful for differential diagnosis for other causes of vasculitis and cutaneous pseudo lymphoma.[3] *Salmonella* infection is still endemic in many parts of the world, but there is no data of *Salmonella* infection during treatment of HCV.[4] The association of DRESS syndrome and *Salmonella* infection has not been published before, and this is the first reported case of TVR-induced DRESS syndrome associated with *Salmonella* infection in a patient with HCV-related cirrhosis.

Disclosures

Author contributions: T. Akar researched and wrote the manuscript, and is the article guarantor. B. Kilavuz took the pathology images. D. Malkoç completed clinical follow-up and provided pathology analysis. G. Dindar created the figure. A. Aynioğlu diagnosed and treated the patient.

Financial disclosure: None to report.

Informed consent was obtained for this case report.

Acknowledgements: We thank Dr. Y. Üstündağ for the critical reading of the manuscript.

Received: October 25, 2014; Accepted: January 10, 2015

References

1. Mousa OY, Khalaf R, Shannon RL, et al. Chronic hepatitis C therapy in liver cirrhosis complicated by telaprevir-induced DRESS. *Case Rep Med*. 2014;2014:380424
2. Cacoub P, Bourlière M, Lübbe J, et al. Dermatological side effects of hepatitis C and its treatment: Patient management in the era of direct-acting antivirals. *J Hepatol*. 2012;56(2):455–463
3. Montaudié H, Passeron T, Cardot-Leccia N, et al. Drug rash with eosinophilia and systemic symptoms due to telaprevir. *Dermatology*. 2010;221(4):303–305.
4. Barrow PA, Jones MA, Smith AL, Wigley P. The long view: *Salmonella*—the last forty years. *Avian Pathol*. 2012;41(5):413–420.