

AUTHORS' REPLY

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Dear Sir,

We thank Yasri and Wiwanitkit for their interest in our paper. The definition of *Cytomegalovirus* (CMV) hepatitis requires the documentation of CMV within liver tissue and the exclusion of secondary causes such as drug-induced liver injury. Detection of CMV viraemia alone in a situation of drug reaction with eosinophilia and systemic symptoms (DRESS) is insufficient for a definitive diagnosis of CMV hepatitis, as it fails to differentiate transient viraemia from CMV end-organ disease.⁽¹⁾

We agree that although histology remains the gold standard for the diagnosis of CMV hepatitis, routine liver biopsy should not be performed in DRESS with deranged liver biochemistries, as liver involvement is common in DRESS. In fact, we recommend serial monitoring of CMV viraemia with prompt pre-emptive treatment following rising CMV viraemia in DRESS.⁽²⁾ In this case, the patient was given high-dose immunosuppressants because of extensive DRESS complicated by progressive renal impairment and cardiac arrest from ventricular fibrillation. Although ganciclovir was initiated pre-emptively following rising CMV viraemia, the patient's liver function continued to deteriorate. Hence, liver biopsy was crucial to distinguish between drug-induced liver injury and CMV hepatitis in order to prognosticate and guide the titration of immunosuppressants.

Yasri and Wiwanitkit suggested that "*hepatitis due to CMV reaction in DRESS syndrome is believed to be the consequence of an immune response against virus reactivation.*"⁽³⁾ In this case, the diagnosis of DRESS and the deranged liver biochemistries preceded CMV viraemia. Moreover, CMV viraemia was only detected following initiation of immunosuppressants for DRESS, making it unlikely that CMV was the perpetrator of DRESS. While CMV reactivation has been associated with DRESS, a causative relationship has never been established.⁽⁴⁾ In this case, CMV reactivation may occur as a result of DRESS or the immunosuppressants initiated for the treatment of DRESS.

In summary, our case report highlighted the need to consider CMV hepatitis as a differential in DRESS syndrome, especially when there is prolonged derangement of liver biochemistry despite the cessation of offending drugs and immunosuppressants.⁽²⁾

Yours sincerely,

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