



## Re: Dabigatran overdose: a case report of acute hepatitis. Extracorporeal treatment

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Direct-oral anticoagulant toxicities are generally associated with bleeding complications, but other adverse effects can also occur. Porru et al. report an interesting case of a patient with dabigatran toxicity presenting with acute liver and renal injury [1]. The authors, however, fail to include some important details when evaluating patients with potential dabigatran toxicity.

We would be interested in knowing the following information from the authors: Was the serum direct thrombin inhibitor level available prior to starting CVVHD? Was ammonia level documented? If elevated, this could have contributed to this patient's altered mental status. Did the authors consider sepsis as a cause of hemodynamic instability, renal dysfunction and hepatic injury?

The patient's hepatic and renal injuries were corrected with CVVHD, but it is unclear whether these injuries were due to dabigatran. There was minimal documentation of the patient's outcome and whether there was any long-term morbidity.

The authors bring up an interesting point in querying the utility of idarucizumab in dabigatran poisoned patients. Idarucizumab mechanistically binds to dabigatran with

greater affinity compared to thrombin, its primary site of action [2]. Idarucizumab has been primarily studied in the management of life-threatening bleeding and for reversal of anticoagulation prior to emergent surgery [2].

This case is unique because of the rarity of anticoagulant toxicity in the absence of bleeding complications. However, it is unclear if this patient's hepatic and renal injuries were secondary to dabigatran.

### Compliance with ethical standards

**Conflict of interest** The authors declare that they have no conflict of interest.

### References

1. Porru M, Mamei A, Cianchetti ME, Musu M, Schirru P, Ruberto MF, et al. Dabigatran overdose: a case report of acute hepatitis, dabigatran case report. Extracorporeal treatment. *Int J Hematol.* 2017;105:532–5.
2. Praxbind (package insert). Ridgefield, CT: Boehringer Ingelheim Pharmaceuticals Inc; 2015.

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