Eravacycline Associated Hypofibrinogenemia During Treatment of *Mycobacterium abscessus*

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BACKGROUND[1-3]

- Eravacycline is a synthetic tetracycline with broad *in-vitro* activity
- Eravacycline has been associated with common adverse reactions including nausea, vomiting, and infusion related reactions
- Tigecycline, a similar broad spectrum synthetic tetracycline, has been found to have an association with hypofibrinogenemia (<200 mg/dl)
- Hypofibrinogenemia may also be associated with eravacycline

PURPOSE

- Describe two cases of hypofibrinogenemia associated with eravacycline encountered in clinical management of transplant patients being treated for *Mycobacterium abscessus* infections
- Explore if additional monitoring of fibrinogen levels may be needed during treatment courses involving eravacycline

PATIENT PRESENTATION

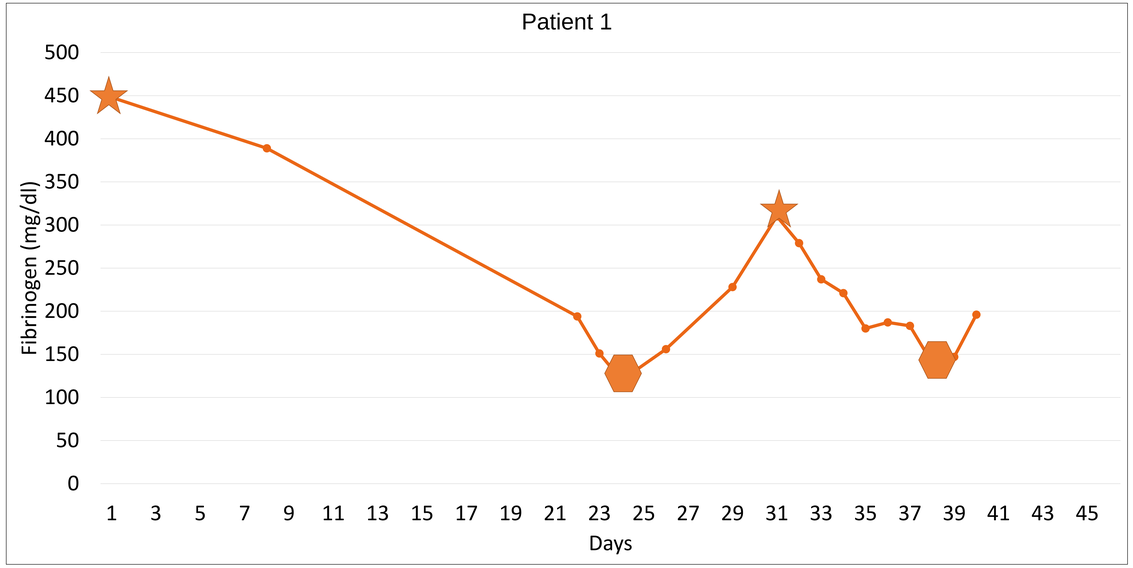
- Patient 1
  - –Deceased Donor Kidney Transplant in 2010
  - –Admitted for hypoxic respiratory failure from COVID-19 (resolved)
  - –Routine infectious workup found disseminated *M.abscessus* infection (blood stream and respiratory)
  - –Empiric therapy with azithromycin, imipenem, tedizolid, and eravacycline
  - –Fibrinogen at baseline: 448 mg/dl
- Patient 2
  - –Bilateral Orthotopic Lung Transplant in 2019
  - –Admitted for management of *M.abscessus* skin and soft tissue infection
  - –Empiric therapy with tigecycline, linezolid, imipenem, and azithromycin
  - –Concern for tigecycline-induced hypofibrinogenemia led to eravacycline switch
  - –Fibrinogen at time of change: 167 mg/dl

References:
1. Xerava [Package Insert]. Watertown, MA:Tetraphase Pharmaceuticals Inc.;2018
2. Guo M, Liang J, Li D, et al. Coagulation dysfunction events associated with tigecycline: a real-world study from FDA adverse event reporting system (FAERS) database. Thromb J. 2022;20:12
3. Cui N, Cai H, Li Z, et al. Tigecycline-induced coagulopathy: a literature review. Int J Clin Pharm. 2019;41:1408-1413.

Disclosures:
Authors of this presentation have the following to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation: Nothing to disclose

OUTCOMES

Figure 1: Fibrinogen Trends Over Time



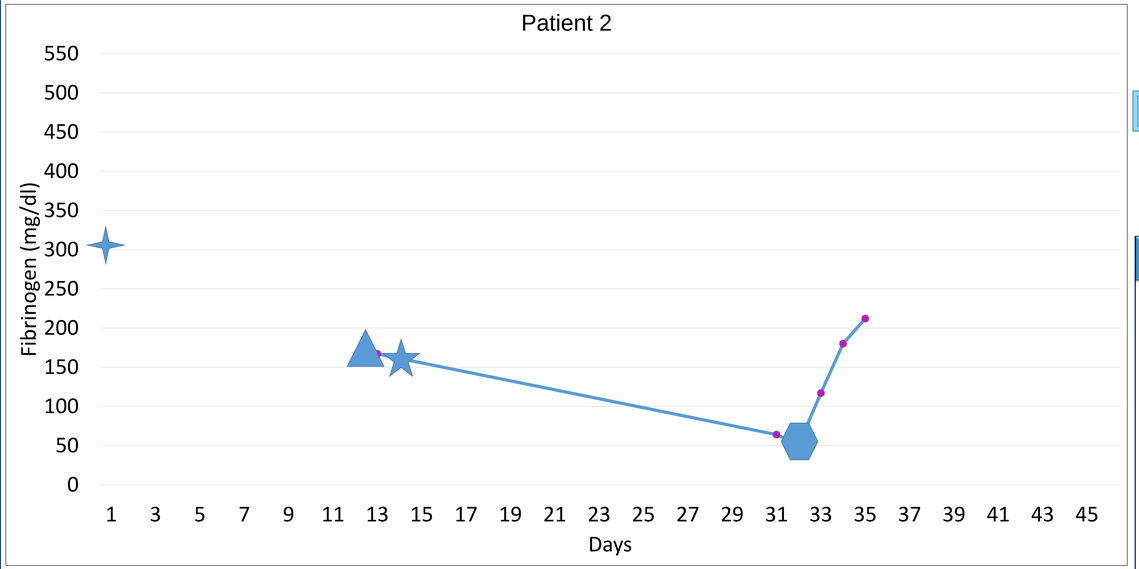
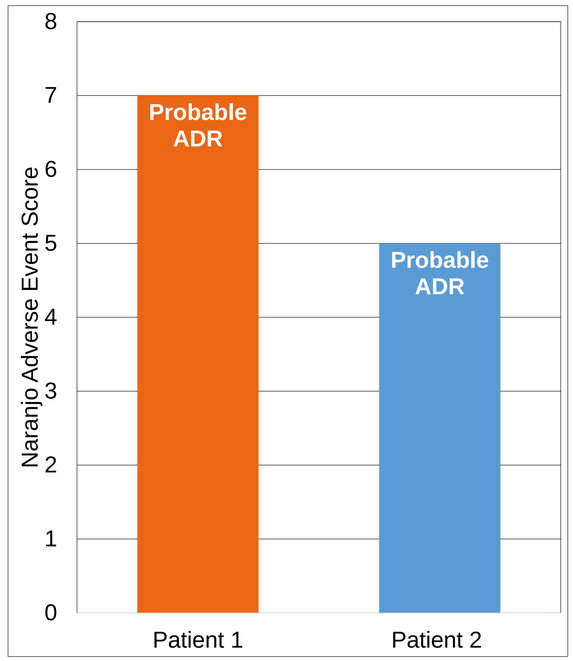


Figure 1: Legend

Tigecycline Start: ✦ Tigecycline Stop: ▲ Eravacycline Start: ★ Eravacycline Stop: ⬢

Figure 2: Naranjo Adverse Drug Event Score



Bleeding Events

- Patient one developed a minor bleeding event requiring packed red blood cell transfusion

CONCLUSIONS

- Our data are limited to immunocompromised and critically ill patients with other risk factors for coagulopathies not controlled for
- Time to resolution, onset, and magnitude of decrease observed with eravacycline is comparable to reports of tigecycline associated hypofibrinogenemia
- Similar to tigecycline, **eravacycline is associated with hypofibrinogenemia**
- Additional monitoring of fibrinogen, other coagulation factors, and bleeding should be considered with eravacycline use