Successful Use of Ribavirin in an Immunocompetent Patient with Severe Hepatitis E

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Introduction

- Hepatitis E is usually a self-limited disease
- Limited use of Ribavirin has been described in immunocompromised patients with chronic hepatitis E
- Here we present the rare case of an immunocompetent patient with severe hepatitis E infection who was successfully treated with Ribavirin

Case Presentation

- A 23-year-old man presented with 5 days of abdominal pain and jaundice 1 month after returning from South Asia
- No history of liver disease, unprotected sex, or toxic ingestion
- Found to have abnormal liver tests:

	16.0	
6.8		199
	49.3	

137	100	8	
			84
4.2	26	1.07	

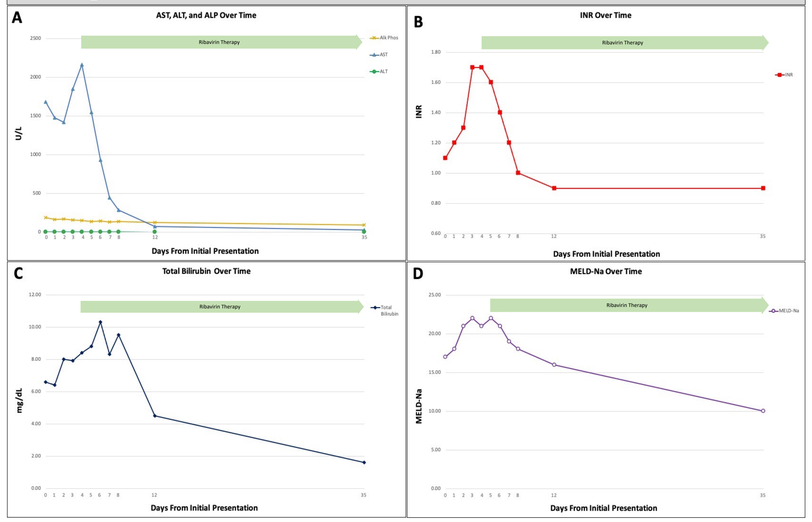
AST: 1,684
ALT: 3,001
ALP: 188
T Bili: 6.6

- Abdominal imaging was unremarkable
- Extensive viral, toxicological, and autoimmune workup only notable for HEV viral load of 1.8 million IU/ml

Hospital Course

- Initially treated conservatively, however, was admitted to the liver service on Day 4 due to persistently elevated liver tests and worsening INR
- Given the concern for impending liver failure, Ribavirin 200mg BID was initiated
- Symptoms improved and viral load decreased to 23,700 IU/ml by Day 6
- Discharged on Day 8 with Ribavirin 400mg BID for 12 weeks
- Complete resolution of liver tests and symptoms by follow-up on Day 35

Figure 1: Liver Tests Over Time in Relation to Ribavirin Initiation



Discussion

- HEV is a common source of liver failure in endemic regions but is rare in developed countries
- No therapy has been approved for acute Hepatitis E
- Ribavirin, a nucleoside inhibitor typically used for Hepatitis C, has been used successfully to treat chronic HEV in immunocompromised patients but no guidance exists for its use in otherwise healthy patients
- We chose to trial Ribavirin to forestall impending liver failure in our patient
- Various dosing regimens have been described, but 400-800mg/day was sufficient to induce a 76-fold reduction in viral load within days of initiation

Conclusions

Although there are no established guidelines on the treatment of severe hepatitis E in immunocompetent patients, our case provides an example of how Ribavirin may be used successfully in severe cases

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