

A Rare Case of Gabapentin Induced Hepatotoxicity

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Introduction

- Gabapentin is an anti-convulsant
- Used off-label to treat neuropathic pain
- **It is not metabolized by the liver**
- Few reported cases of hepatotoxicity associated with it

Case Presentation

- 41-year-old male with PMH of type 1 diabetes and ESRD on hemodialysis presented with shortness of breath
- Workup revealed hyperkalemia with potassium 8.2 mmol/L, EKG with peaked t waves, and glucose 561
- Admitted to ICU for urgent dialysis
- LFTs significant for ALP 1,232 IU/L, AST 291 IU/L, ALT 188 IU/L, total bilirubin .8 mg/dL
- Normal LFTS- 6 months prior
- Ultrasound of RUQ revealed small volume ascites
- Patient reported starting gabapentin 300 mg three times daily after a below-knee amputation 3 months prior
- Patient denied any other medication changes, denied acetaminophen use, and hepatitis panel was negative
- Patient's gabapentin was held and LFTs improved and remained stable
- Patient was advised to discontinue gabapentin and follow up outpatient with gastroenterologist

Gabapentin is an anti-convulsant which is not metabolized by the liver

It should be recognized as a rare cause of hepatotoxicity

Discussion

- **Exact mechanism of gabapentin is unknown**
- Structurally related to GABA
- Not hepatically metabolized and therefore not studied in patients with hepatic impairment during the FDA approval process
- **There have been very few cases of gabapentin induced liver injury**
- Our patient had a clear temporal association of liver injury occurring after beginning gabapentin therapy, no other cause for liver injury, and improvement in LFTs after discontinuation of gabapentin
- Further studies on this relationship are needed and gabapentin should be considered as a cause of drug induced liver injury

References

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