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LETTER TO EDITOR

A rare case of carbamazepine induced pancreatitis

Dear Editor,

Drug induced-pancreatitis (DIP) is rare, the incidence being 1.4-5% as estimated from case reports. Strong evidence of DIP arises from case reports where pancreatitis developed with rechallenge to the offending drug [1]. Among anticonvulsants, valproic acid is known to cause pancreatitis; but, carbamazepine has been rarely associated with pancreatitis. Only few cases have been reported with proportional reporting ratio for carbamazepine and pancreatitis being one as per Food and Drug Administration (FDA) (verified).

We had a 27-year-old man diagnosed as having seizure disorder in 2005, initially was on valproate, then changed to carbamazepine after the first episode of DIP. This was followed by the second episode of DIP in 2011, but carbamazepine was continued and now presented with the third episode of DIP. His examination was normal except for mild tenderness in the epigastric area. Abnormal investigations were serum amylase 2678 IU/L and serum lipase 1115 U/L. Ultrasonography revealed only bulky pancreas [Figure 1], rest was unremarkable. Carbamazepine levels were 6.7 µg/mL (within normal range). Final diagnosis of recurrent acute mild DIP was made with bedside index of severity in acute pancreatitis score 0/5. After discontinuing the drug and supportive management, amylase and lipase levels came to normal. Now anticonvulsant was changed to zonisamide. Although, this report appears to be 28th published case as per FDA, we believe this is the first case of recurrent acute pancreatitis and 2nd confirmed by rechallenge with carbamazepine. Based on reports from FDA, total of 14,927 carbamazepine users studied up until January 2014, among which 24 people (0.16%) had pancreatitis and more were found in the age group 10-19 years [2].

The confirmatory diagnosis of DIP depends on exclusion of other causes of acute pancreatitis. Badalov et. al. [1], revised classification of DIP places carbamazepine in class III; which includes drugs with at least two case reports, but no consistency or rechallenge. The severity of adverse effect is assessed on the basis of clinical status and not only on carbamazepine levels. Toxicity may result from carbamazepine *per se* or its active epoxide metabolite. In our patient, levels were within normal range. Laczek et. al. [3], in their study have reported the 15th case of carbamazepine induced pancreatitis and were first to confirm by rechallenge. Therefore, carbamazepine might now be classified in class I rather than class III. Soman and Swenson[4] in their study have reported a 73-year-old female who developed carbamazepine induced pancreatitis which resolved after discontinuation of the drug, but rechallenge was not attempted.

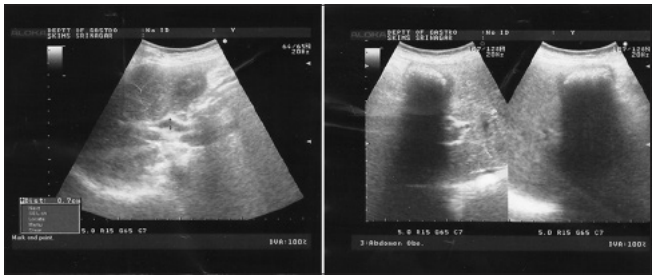

Figure 1 Ultrasonography revealing bulky pancreas

Our patient initially developed valproate-induced pancreatitis, anticonvulsant was replaced by carbamazepine. Patient remained episode free on carbamazepine but after 2 years again developed DIP, this time due to carbamazepine. The drug was now stopped. Patient was restarted after 2 months on carbamazepine, then developed recurrent DIP (3rd time) with positive rechallenge test, with other possible causes excluded. Management of DIP requires removal of offending agent and supportive care. This case illustrates the importance of notifying DIP. Since anticonvulsant drugs are important for maintaining seizure free episodes, early identification of anticonvulsants causing pancreatitis is important and hence that patient can be started on alternative medicines. In order to prevent recurrent episodes of DIP, clinician requires thorough knowledge of drugs with strongest evidence for causation of pancreatitis.

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Authors' Contributions

All authors contributed equally to the manuscript.

Consent

The authors' certify that a written informed consent was obtained from the patient for publication of the report and any accompanying images. A copy of the written consent is available for review by the editor-in-chief of this journal.

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Competing Interests
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Sincerely,

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