

DSEN ABSTRACT

Determination of drugs associated with drug-induced pancreatitis: a systematic review of case reports

Summary

- A total of 668 case reports were included and identified 202 different drugs associated with the occurrence of drug induced pancreatitis.
- Overall, 43 drugs were rated to have strong evidence of an association based on criteria related to # of case reports found with or without re-challenge, exclusion of other non-rug cases and consistency of latency.
- Conversely, 55 (27%) had weak evidence of association based on single case reports.
- A listing of associated drugs is available upon request from the study team.

What is the issue?

- Knowledge of drugs with potential associations with acute pancreatitis (AP) in the literature may heighten awareness of this potential adverse event amongst researchers trialing similar drugs. A current assessment of drug associations with AP is lacking in the literature.

What was the aim of the study?

The following research question was addressed:

- What drugs have been shown to have a potential association with drug-induced pancreatitis (DIP)?
- What level of evidence is available for potential associations?

The case report literature was systematically reviewed to identify drugs with potential associations with AP and the burden of evidence supporting these associations.

How was the study conducted?

- A protocol was developed a priori and registered with PROSPERO. We searched MEDLINE, Embase, the Cochrane Library, and additional sources to identify studies reporting single or multiple cases of DIP. Only case reports that satisfied the accepted diagnostic criteria of AP were included. Established systematic review methods were used for screening and data extraction. A drug classification system (ranging from Ia as strongest evidence to IV as weakest evidence) to assess strength of evidence for associations was developed a priori based upon the number of cases identified with or without re-challenge, exclusion of the main other non-drug causes of AP, and consistency of latency.

What did the study find?

- A total of 668 unique cases of DIP were identified, implicating 202 drugs. Exclusion of other non-drug causes of AP was incomplete or poorly reported in all cases, and causality assessment was not conducted in 80% of cases.
- Forty-three drugs (21%) were classified as being Class Ia and having the highest level of evidence regarding their association with AP. Causality was assessed for 22 of these drugs in 55 case reports and was deemed to be probable or definite for 18 drugs in this class.
- Over a quarter of all drugs ($n = 55$; 27%) were implicated in single case reports without exclusion of other causes, and were classified as having the lowest level of evidence regarding their association with AP (Class IV).
- In conclusion, a large number of drugs with potential associations with AP were identified. However, over a quarter of these potential associations were based upon single case reports that had not completely excluded all non-drug causes of AP.
- A listing of associated drugs is available upon request from the study team. More conclusive evaluation of each association would require systematic review and meta-analysis of trial data for each drug.

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