

Incidence of acute pancreatitis in the Association of British Clinical Diabetologists (ABCD) nationwide exenatide audit

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³ *The ABCD nationwide audit contributors are shown in the appendix.*

Summary

- Three out of four cases of pancreatitis reported in the ABCD nationwide exenatide audit had alternative causes such as gallstones, significant alcohol consumption and significant hypertriglyceridaemia.
- The incidence of pancreatitis without an alternative cause was 0.03 per 100 patient years of exposure to exenatide in the ABCD nationwide exenatide audit.
- The total incidence of reported pancreatitis, including all the cases with alternative causes, was 0.12 per 100 patient years of exposure to exenatide in the ABCD nationwide exenatide audit.
- “Idiopathic” acute pancreatitis is a common occurrence in routine acute surgical practice and therefore exenatide may not necessarily be the culprit even if no other cause is found.

Pancreatitis in the ABCD nationwide exenatide audit

In the ABCD nationwide exenatide audit, a total of 315 contributors from 126 centres throughout the UK submitted data on 6717 patients in the audit between December 2008 and December 2009. Much has been learned from this audit (1), but the main outcomes were first reported in 2010 in Practical Diabetes International (PDI) (2). The on line audit questionnaire specifically asked about pancreatitis occurring in patients on exenatide being reported in the audit. All reports of pancreatitis occurring in exenatide treated patients were followed up by contacting the reporting centre. The centres were invited to study the hospital notes and investigation reports in detail for as much information as possible about the pancreatitis in the cases concerned and send this to ABCD whilst maintaining patient confidentiality throughout. The cases of pancreatitis were discussed with the other main outcomes in the 2010 report (2).

There were four cases of pancreatitis reported in the audit and after careful scrutiny of detailed information about each reported case, three cases had alternative causes for the pancreatitis such as gallstones, significant alcohol consumption and significant hypertriglyceridaemia, leaving only one case with no obvious alternative cause apart from the use of exenatide. The four cases are summarised in the following table from the 2010 report in PDI (2).

| Pancreatitis? | Summary |
|---|---|
| Possible exenatide pancreatitis – mild case | Mild epigastric pain and tenderness 2.5 weeks after starting exenatide. Amylase 820U/L. Weight and glycaemic control had improved; she felt great and was disappointed to have to stop. Symptoms improved rapidly on stopping exenatide |
| Pancreatitis not due to exenatide | Gall stone pancreatitis with episodes prior to exenatide. Link to exenatide unlikely |
| Pancreatitis not due to exenatide | Significant alcohol consumption prior to admission. Extreme hypertriglyceridaemia (87.8mmol/L). 2 previous admissions with severe abdominal pain prior to exenatide |
| Comment by his diabetologist: 'Was it gall stones or was it exenatide? I will never know' | ITU with pancreatitis after one year on exenatide without problems. Multiple gall stones on CT. Patient died on ITU of myocardial infarction. 'Pancreatitis secondary to gall stones' on Part B of death certificate. ITU team did not know he was on exenatide |

The audit monitored 3336 years of exposure to exenatide. With one case which might be related to exenatide therapy, this represents an incidence of unexplained pancreatitis which might therefore be related to exenatide of 0.030 per 100 patient years of exposure to exenatide in the ABCD nationwide exenatide audit.

Taking all four cases of acute pancreatitis reported in the audit, including the three cases with another cause (see table) the overall incidence of pancreatitis reported in the audit was 0.12 per 100 patient years of exposure to exenatide.

When considering pancreatic cases without any obvious alternative cause it is worthwhile to remember that, in routine acute surgical practice, “idiopathic” acute pancreatitis is a common occurrence (3,4). Thus it should be remembered that exenatide may not necessarily be the culprit even if no other cause is found.

References

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Declaration of interests

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REJR has received speaker fees, consultancy fees and/or educational sponsorship from a number of companies including in alphabetical order, Bristol Myers Squibb / Astra Zeneca Alliance, Eli Lilly, GlaxoSmithKline, Novo Nordisk, Sanofi-Aventis and Takeda.

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Appendix: ABCD nationwide exenatide audit contributors

The following are those whom we know about.

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