Reviewer’s report

Title: Pancreatitis in Pre-Adolescent Children: a 10 year experience in the Pediatric Emergency Department

Version: 0 Date: 04 Oct 2019

Reviewer: Gregory Wanner

Reviewer's report:

Thank you for allowing me to review this interesting paper. I do have a few questions and comments and a couple of concerns:

Pg 4, Line 17: Does small refer to size or age? Would change to "young children."

Pg 5, Line 25-27: Should define what abdominal pain "compatible with AP" is. Was this pre-defined? Is it only epigastric pain or tenderness? How many patients with elevated amylase/lipase or imaging consistent with acute pancreatitis were excluded due to not having the appropriate type of abdominal pain?

Pg 6, Line 6: I have some concerns with the statement "we assumed that alcohol would not be a significant etiology in this age group." Was the decision to not consider alcohol as a possible etiology based on anecdotal experience or background data and prior studies in this age group? Were charts reviewed for reports of alcohol use, especially for the older pre-teens? While I agree that there are likely very few children in this age range with alcohol-induced acute pancreatitis, since alcohol is one of the most common causes of pancreatitis across the population, I believe the decision to not consider this potential etiology is a flaw of the study (even if unlikely in this age group). If prior research/background data was reviewed showing very low prevalence of alcohol use in pre-teens, and this data was used to make the decision not consider alcohol as an etiology, then that is acceptable and that information should be provided and referenced; otherwise, this is a major flaw of the study.

Pg 6: Results section: Out of curiosity, why were results reported as IQR rather than SD? Was this from the advice of a statistician? Not a problem, but more of a clarification. Also, it appears some of the demographics are missing, such as a breakdown of gender and how many patients were transferred versus diagnosed at the pediatric ED. Knowing whether there was a significant gender difference or higher number diagnosed in outside versus peds facility would be important information.

Pg 8, Line 30-47: This paragraph does not appear to be consistent with the prior inclusion criteria (2 of 3 criteria: Compatible abd pain, elevated amylase/lipase, and/or imaging). This paragraph mentions "All patients had pancreatitis determined by an elevated lipase or amylase level and symptoms of pancreatitis except for six patients..." It is unclear if these patients were considered to have pancreatitis or not, and whether they were included in the study, or whether this statement is addressing patients who were excluded from the study.
Pg 9, Line 3-15: This section mentions "unknown or suspected autoimmune/systemic etiology...groups comprising nearly half of the cases of acute pancreatitis" and also states "as suspected, alcohol induced pancreatitis was not observed." As per prior concern, if alcohol induced pancreatitis was not considered in the study, then it would not be observed. Is it possible that some of the "unknown" cases could be related to alcohol, but alcohol was not considered as a possible etiology? Again, this is a major flaw of the study that must be addressed and discussed in the limitations.

Pg 9, Line 49-54: I do agree that non-pediatric emergency departments would often likely send a lipase if "abdominal labs" are sent. It would be interesting to review the number of children in this study that were sent from non-pediatric EDs versus those diagnosed in the pediatric ED. I believe this information should be included to help give a full picture of children diagnosed with pancreatitis (if nearly all were sent from outside facility, then perhaps the pediatric ED should be screening more, versus if only the questionable cases were sent from outside non-pediatric facilities).

Pg 10, Line 10-27: Most of this paragraph could be reviewed and reformatted. I believe it is a bit of an overreach to say that this paper "confirmed" that pre-adolescent pancreatitis has a much different distribution of etiologies than in adults, especially since one of the most common causes in adults (alcohol) was not considered. Also, this is based on the data from one facility (even if a relatively large catchment area)--the 1 facility aspect should be mentioned. Lines 20-27 are confusing. The statement "Amongst patients with a first episode of acute pancreatitis, our study had 15% of patients with identified recurrences whilst the rate in adults has been described between 20-30%" is unclear. Did these 15% of patients have a first episode during the study period and then return again during the study period, or were they identified as recurrent cases? Please reformat and clarify.

Overall an interesting overview of the pediatric patients with pancreatitis from one facility over a significant time frame.

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If not, please specify what is required in your comments to the authors.

Yes

**Does the work include the necessary controls?**

If not, please specify which controls are required in your comments to the authors.

Unable to assess

**Are the conclusions drawn adequately supported by the data shown?**

If not, please explain in your comments to the authors.

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