

The Clinical Characteristics of Fractures in Pediatric Patients Exposed to Proton Pump Inhibitors

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The key findings are:-

1. Higher Fracture Rate in PPI Group:

- There was a statistically significant higher rate of fractures among children exposed to PPIs (1.4%) compared to those without exposure (1.2%), $p=0.019$
- After adjusting for variables like sex, race, and other factors, the difference remained significant ($p=0.017$) with an adjusted odds ratio of 1.2

2. Fracture Location Differences:

- Upper extremity was the most common fracture location in both groups
- However, PPI-exposed patients had significantly higher rates of:
 - Lower extremity fractures
 - Rib fractures
 - Spinal fractures
- This difference in fracture location distribution was statistically significant ($p=0.01$)

3. Age-Related Findings:

- The highest percentage of fractures occurred in:
 - 1-3 year age range (27.5% in PPI group, 25.2% in non-PPI group)
 - 9-13 year age range (33.2% in PPI group, 36.4% in non-PPI group)
- The 2-year-olds had the highest number of fractures in the PPI group (12.9%)
- The 1-year-olds had the highest number in the non-PPI group (13.5%)

4. Additional Important Findings:

- The increased fracture risk appeared to be a class effect, not related to any specific PPI medication
- The study suggests that providers should consider potential fracture risk when prescribing PPIs to paediatric patients
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- The researchers note that further studies are needed to better understand the relationship between PPIs and fractures in children, particularly regarding dosage and duration of use

These findings contribute to the growing body of evidence about potential risks associated with PPI use in paediatric patients.

This study suggests an increase risk of fracture among otherwise healthy paediatric patients exposed to PPIs within a 2 year period of exposure