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CAT Block 10

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Article: DePeter Et al., Does the Use of Ibuprofen in Children with Extremity Fracture Increase their Risk for Bone Healing Complications? JEM. 2017; 52(4):426-432.

Objective: "To determine if exposure to ibuprofen is associated with an increased risk of bone healing complications in children with fractures."

Study Type: Retrospective study of kids aged 6-17 with fracture of the tibia, femur, humerus, scaphoid, or fifth MTP

Methods: Retrospective study of children between 6-17 in the ED who presented with fracture of the tibia, femur, humerus, scaphoid, or fifth MTP who follow up with orthopedic service. These fracture were chosen because they have the greatest healing complications. Patients were classified into two groups: those with exposure to ibuprofen and those who weren't. Measured outcomes were nonunion, delayed union, or re-displacement on follow up.

Results: 808 patients were included, 338 were exposed to ibuprofen. Overall 27 patients had bone healing complications; 8 had nonunion, 3 had delayed union, 16 developed re-displacement. Of those exposed to ibuprofen 10 (3%) developed bone healing as compared to non-ibuprofen group which had 17 (4%). There was no association between ibuprofen exposure and bone healing complications.

Conclusion: Children who have long bone fractures and are discharged home with ibuprofen develop bone healing complications at the same rate as those who are not exposed to ibuprofen. Therefore ibuprofen is a safe management for pediatric patients with fractures.

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