

# Blunt pancreatic injury in children: outcomes of non-surgical treatment over 50 years in a level 1 traumacenter

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## Introduction

The management of blunt pancreatic injury in children continues to be a source of controversy, particularly with regards to (non-) surgical treatment of pediatric patients. With this study we aim to evaluate the course of non-surgical treatment of blunt traumatic pancreatic injury in pediatric patients.

## Method

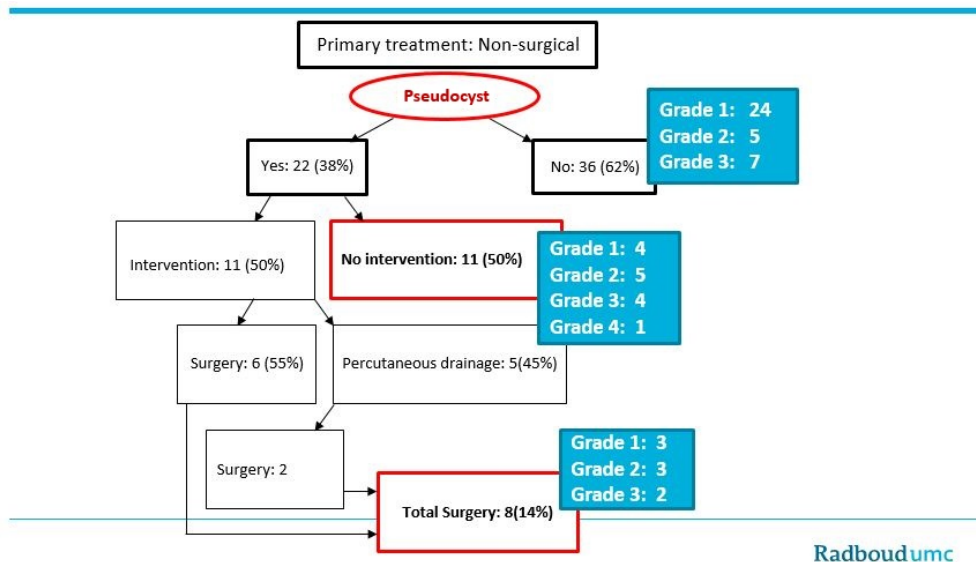
A retrospective case review analysis was conducted of patients <18 years of age, admitted after a trauma to the Radboudumc between 1975-2021 with a diagnosis of blunt traumatic pancreatic injury. Medical records were reviewed, the main outcomes being mortality, (time to) recovery, need for secondary intervention (surgical or non-surgical) and complications. Also, various patient characteristics were obtained at presentation, mainly concerning physiological status at presentation.

## Results

A total of 65 children were admitted with a mean(SD) age of 9(4) years, 58 were initially managed non-surgically, with the following characteristics. There were 31 patients with a grade I injury, 13 grade II, 13 grade III, 1 grade IV and 0 grade V. Mortality was 0%. Complications were seen in 53% of the patients, 22 developed a pseudocyst (38%) (Fig1). Only 8 patients (14%) ended up requiring a surgical intervention due to complications. Injury severity varied greatly across these groups.

## Conclusion

These outcomes indicate that pediatric patients with blunt pancreatic injuries can be safely managed non-surgically, including grade 3 and 4 injuries. Pseudocysts were the main cause for an intervention. In pediatric patients, timing of (percutaneous) intervention, the correlation between injury severity and morbidity/mortality and the effects on long-term quality of life requires more research.



**Treatment of pseudocysts in pediatric patients with a blunt pancreatic injury**