

STRONG CHILDREN'S RESEARCH CENTER

Summer Research Scholar

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ABSTRACT

Title: *“Ingestion of Multiple Magnets in Kids: A Look at Clinical Management at a Single Tertiary Care Center”*

Background: Foreign-body ingestions are a frequent cause of Emergency Department visits and hospitalization of children

and we sought correlations that could safely decrease the length of hospital stay and management of pediatric ingestion of multiple magnets. We aimed to describe the characteristics (patient demographics, history, symptoms) and magnet management of inpatient management (conservative, endoscopic, or surgical). We aimed to analyze the adverse outcomes and management between the ingestion of one, two, or three or more magnets. Finally, we aimed to assess whether patient characteristics may also affect the type of management and time to invasive

management. A significant p-value ($p=0.0636$) between the frequency of invasive management was seen between those patients who ingested exactly 2 magnets compared to those who ingested more than 2. This suggests that invasive procedures are less likely to be performed on 2 magnets compared to more. Of the procedures, 61.54% were colonoscopies for 2 magnets while only 50% of more than 2 ingestions got the procedure. However, this difference was not significant between the two groups. There was a significant p-value of 0.0112 between the time on clear liquid diet and NPO to time until the procedure was done. Patients who ingested 2 magnets had their procedure done much quicker. While there was no significance between time to procedure between the age group, there were more 6-11-year-olds admitted (18) for magnet ingestion compared to younger (9) or older (7).

While there were some significant values in the study, a larger sample size would be needed to confirm the findings. Previous inpatient management has been more hesitant in the past for 2-magnet ingestions than for 3 or more magnets.

Further research would allow for more confidence in changing inpatient management and lowering hospital stays by quicker management for patients with 2 magnet ingestions.

References:

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