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Are We Using Abdominal Radiographs Appropriately in the Management of Pediatric Constipation?

This study was conducted to determine why pediatric gastroenterologists obtain abdominal radiographs in the management of pediatric constipation. Many studies have shown that a general complaint of constipation in an otherwise healthy child does not warrant an abdominal x-ray. This is because radiographic findings have been shown to correlate poorly with clinical severity. Therefore, best practice would be to base the treatment plan on the clinical findings and patient history, and use the Rome IV criteria to determine whether further work-up is necessary.

This prospective study was done to understand why providers are still ordering abdominal radiographs even though it is not medically required and is in fact exposing children to unnecessary radiation. A total of 24 providers were surveyed after 72 patient encounters. Reasons for obtaining an abdominal radiograph included evaluation of stool burden (70%), need for a clean out (35%), fecal impaction (27%), cause of abdominal pain (24%), demonstration of stool burden to families (14%), assessment of response to therapy (13%), or encopresis (10%). The plan was changed in 47.6% of cases based on radiographic findings. In cases in which a plan was outlined before obtaining the radiograph (69%), the initial plan was implemented on average in 52.5%. In cases with no plans before obtaining the radiograph, previously unconsidered plans were implemented in 8.7%. Therefore, the researchers concluded that the majority of providers were still using x-rays to help them make a diagnosis, and many would change their treatment plan based on the results.

This study highlighted the need for providers to be educated on when abdominal imaging is necessary for pediatric patients with functional constipation. Specifically, providers should be encouraged to consult with the existing constipation guidelines before ordering imaging. This will help reduce unnecessary radiation and allow patients to receive prompt and reasonable treatment.

Beinvogl, Beate, et al. "Are we using abdominal radiographs appropriately in the management of pediatric constipation?." *The Journal of pediatrics* 191 (2017): 179-183.