

Evidence Discussion Constipation

(AB-21.3)

Clinical presentation and results of minimally invasive testing determine the situations in which constipation requires imaging.

- Computer tomography (CT) of the abdomen offers excellent 3-dimensional resolution of the gut and its surrounding structures, especially when performed with use of oral and/or intravenous (IV) contrast agents. CT imaging captures all of the abdominal organs and the surrounding cavity and mesentery. It is central to the evaluation of patients with constipation alongside red flag symptoms that suggest infection or malignancy. CT scan requires a significant dose of ionizing radiation but is ideally suited to imaging lesions within the gut because the speed of image acquisition reduces the potential for motion artifact. Typically performed with IV contrast in patients with normal kidney function, there is the added risk of allergic reaction to contrast; however, the contrast enhances the ability to evaluate for both infectious and malignant conditions.
- MRI Defecography is a dynamic study evaluating the movement of abdominal and pelvic structures during the expulsion phase. It is used as an alternative to fluoroscopy and is superior to fluoroscopy in identifying intussusception. Magnetic resonance imaging (MRI) uses a magnetic field to capture excellent 3-dimensional resolution. MRI yields better soft contrast resolution than CT and fluoroscopy and does not expose individuals to ionizing radiation, but due to longer image time is motion artifact-prone and thus less suited to resolving gastrointestinal detail. In addition, and especially in youths, MRI may require sedation. For this condition, MR Defecography is performed without contrast, eliminating contrast-related risk. MR Defecography is indicated in refractory constipation when minimally invasive diagnostic modalities such as manometry and balloon-expulsion have confirmed a defecatory disorder or are nondiagnostic or for guiding surgical planning of pelvic structural abnormalities.

References:

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- 3) Wald A, Bharucha AE, Limketkai B, et al. ACG clinical guidelines: management of benign anorectal disorders. *Am J Gastroenterol*. 2021;116(10): 1987-2008. doi:10.14039/ajg.00000000000001507.