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RESEARCH ARTICLE

ENDOSCOPIC TRANSANAL REMOVAL OF EGG FROM RECTOSIGMOIDAL JUNCTION

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Abstract

It is not uncommon that we encounter patients with different kinds of foreign bodies in the rectumfor a variety of reasons. Most of the cases reported in the literature reveal that rectal foreign body insertion is mainly for sexual gratification. To avoid the embarrassment and scrutiny, patients often delay seeking medical help which complicatesmedical management. We discuss a case of a 21-year-old male who presented after voluntary insertion of multiple eggs into the anus. Although the suggested protocol and technique was followed to retrieve the egg and the debris, it still required some creativity and careful methodology.

Introduction:-

It has been reported that voluntary placement of foreign objects into the rectumis mainly for sexual pleasure than for other reasons such as criminal (i.e. body-packing with illicit drugs) or therapeutic motivation [1-3]. Due to the nature of the presentation, patients hesitate to disclose the entirety of their medical history which adds to the complexity of the case. In many cases, removal of such foreign bodies is very challenging and involves multiple approaches both via colonoscopy and sometimes requiring laparoscopic surgery and open laparotomy [2,4]. Large, sharp, and delicate rectal bodies such as in our presentation have a high risk of causing gastrointestinal perforation especially when it is in the sigmoid colon. Our case describes a patient who had inserted several raw eggs that reached rectosigmoid junction.The egg was successfully removed via flexible sigmoidoscopy without any complications to the GI tract.

Case Report

A 21-year-old male with no pertinent prior medical history presented to the ED with complaints of rectal bleeding. He stated that he and his partner were indulging in sexual gratification using eggs. A total of four eggs (raw, shelled, not boiled) were inserted into the rectum about 6 hours prior to ED arrival. Soon after insertion, he experienced some bright red rectal bleeding, after which he self-administered a saline enema that resulted in 3-4 bouts of bloody stools. The last bowel movement contained eggshells per patient description. Initial laboratory evaluation including CBC and CMP was mostly unremarkable. Imaging with computed tomography (CT)of abdomen/pelvis revealed high-density material within the sigmoid colon along with rectal and anal wall thickening and edema suggesting acute mechanical injury (Figure 1 and 2). No severe complications such as perforation or obstruction were seen. We decided to attempt foreign body exploration and removal in a transanal manner under flexible endoscopic guidance.

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Following administration of general anesthesia, a flexible sigmoidoscope (Olympus, CF-H190) was inserted transanally with the patient in the left lateral decubitus position. As described in the CT scan, multiple fragments of eggshells were found, as well as an intact egg at the rectosigmoid junction. An unsuccessful attempt was made to harness this object with a Roth net. A foley catheter was then introduced transanally above the egg and with the balloon inflated, the foley catheter was pulled on to drag the egg into the lower rectal vault. At this point, with the egg trapped between colonoscope and foley catheter, a pair of ring forceps was used to grasp the egg and crush it. Once it was crushed, the eggshells were pulled with the catheter into the anal canal where they were manually evacuated. A final inspection with the flexible sigmoidoscope showed that there was no proximal mucosal injury or ischemic insult because of the impacted egg. The patient was brought to the recovery room in stable condition with no further complication.

Fig 1:- Axial plane CT showing Foreignbody.

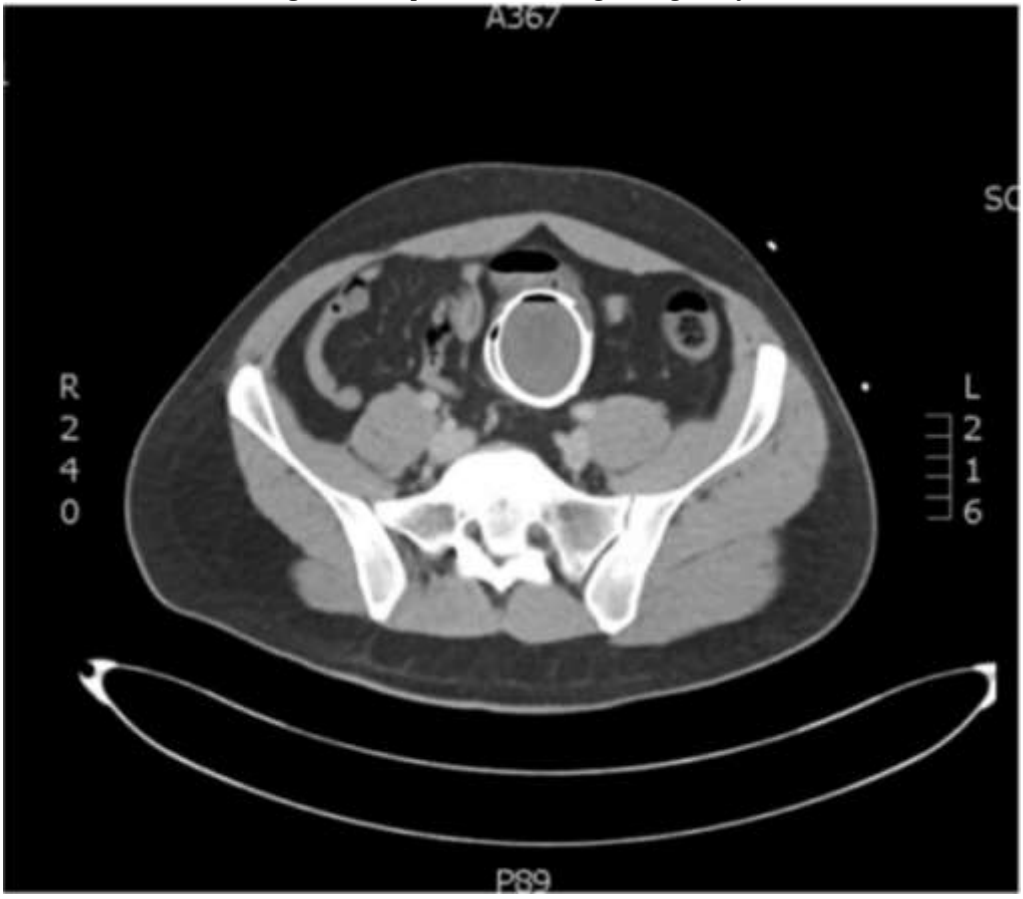
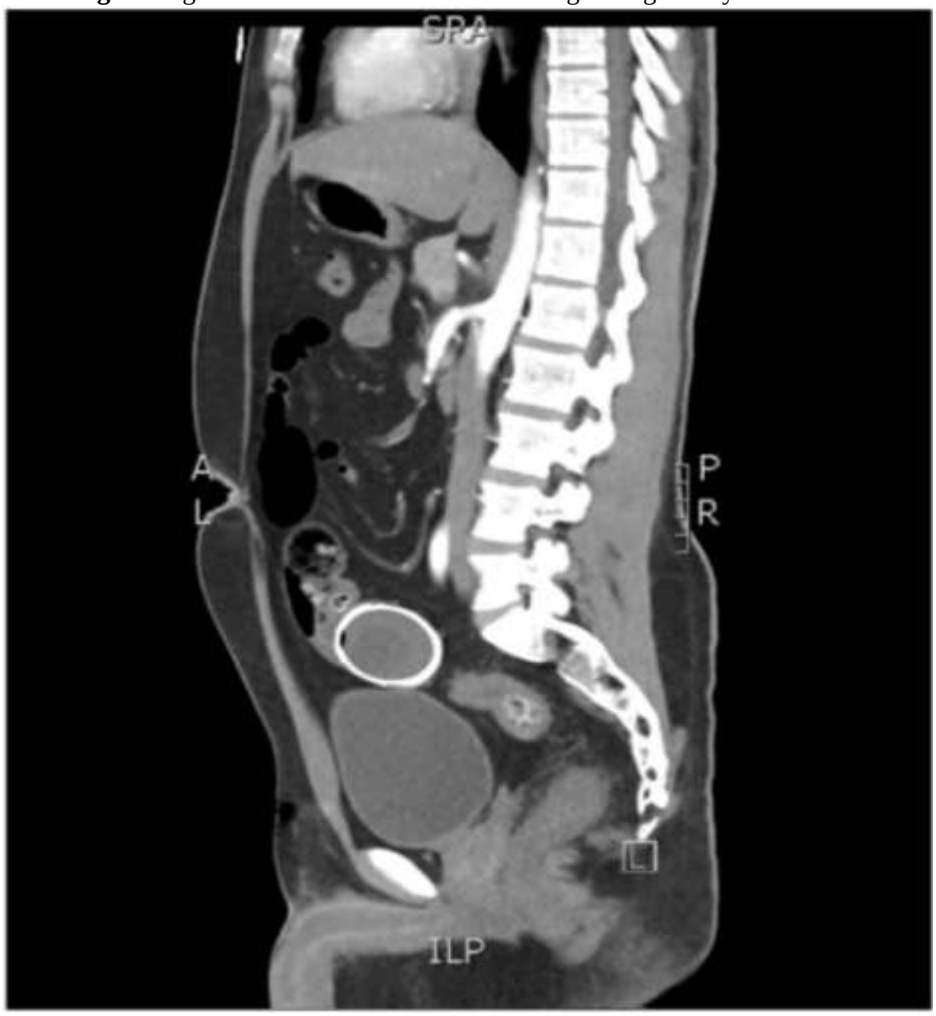


Fig 2:- Sagittal Plane CT of Abdomen showing Foreign Body in Rectum.



Discussion:-

The incidence of retained rectal foreign bodies has been progressively rising in the recent decade [5]. It is reported that men, in their 4th and 5th decades of life, comprise most of the patient population implicated in retained rectal foreign bodies [2,3]. Some of the most common rectal foreign bodies include sex toys, glass bottle, food, and various other household items [3]. Sexual arousal is the main reason for anal penetration of these objects. Many of the patients present with lower abdominal pain and rectal pain, but some patients delay seeking medical attentionand may not reveal their full medical history due to feelings of shame and embarrassment [1]. They often try extracting the objects by themselves at home which in turn may cause more trauma to the rectal lining [3]. This warrantsphysicians to utilize nonconfrontational patient interviewing and display heightened empathy and reassurance of privacy. Gastrointestinal (GI) perforation is one of the most feared complications of rectal foreign bodies. The length of time the RFB remains in the GIT and the sharpness of the leading part generally increase the risk of GI perforation [6]. It is often very challenging and requires precise technical skills to remove RFBs. Object retrieval becomes more difficult due to object's size and shape as well as resultant local edema and convulsions of the anal sphincter [7]. If the object lodges itself into the rectosigmoidal transition zone, like the egg in our case, it will require transanal approach with sedation [3]. Many of RFB cases could be managed with transanal endoscopic approach, but any sign of peritonitis (abdominal rigidity, rebound tenderness, unstable vital signs) would warrant an abdominal surgery [6,8]. Predictors of failure with transanal approach include objects are longer than 10cm, objects that are hard or sharp, objects in sigmoid colon, and those that have been retained for longer than 2 days [8]. Previous studies have successfully extracted RFBs with the use of endoscopic guidance, forceps, and urinary balloon [6]. To our knowledge, none of the cases dealt with removal of intact, raw egg with a combination of sigmoidoscope and foley catheter. The eggshells, although not as sharp as pieces of glass, requirethe same special precaution to be

removed as it can lacerate the mucosal lining of the rectal wall. This is the reason that we carefully pulled the egg into the anal vault before crushing it. Moreover, our patient had no apparent signs of peritonitis, so we proceeded with the plan to manually extract the RFB rather than opting for other means of extraction. We assessed for mucosal injury, anal sphincter function, rectal wall status pre and post extraction, all of which were unremarkable.

Conclusion:-

Retained rectal foreign bodies can present unique challenges to physicians and it requires ingenuity for extraction. Our case was one such case that resulted in a successful removed with transanal endoscopic guidance. For removal of hard to grab objects like the egg, in our case, we found the use of urinary catheter along with flexible sigmoidoscope effective.

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