Peritoneal vegetable foreign body

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ABSTRACT

Insertion of foreign bodies in the rectum for sexual pleasure is quite common, especially in homosexual males, but their presentation with rectal perforation leading to fecal peritonitis and the whole object lying in the right iliac fossa (intraperitoneally) is rare. We report a rare case where a 45-year-old male presented with an acute abdomen with no other history, which on exploration turned out to be a large 10″ long brinjal (vegetable) lying in the right iliac fossa adjacent to the ascending colon, with fecal peritonitis. The rationale for reporting this case is the unusual presentation and unexpected surprising findings on exploration. No one would ever expect brinjal lying in the usual location of the appendix, on exploring a case of fecal peritonitis.

Key words: *Autoeroticism, Foreign bodies, Rectal perforation*

Foreign bodies are uncommon, but they are important and interesting. The current incidence of foreign bodies is unknown. Conventionally, a greater incidence has been described among men than among women. Published experience with rectal foreign bodies is based mainly on single-center case series. Studies of adults have suggested that most patients are men (65–100%) who are in their thirties or forties (range 16–94 years) [1]. Most of the foreign bodies inserted into a body cavity cause only minor mucosal injury. However, ingested or inserted foreign bodies may cause bowel obstruction or perforation which leads to severe hemorrhage, abscess formation, septicemia, or undergo distant embolization [2]. Surprisingly, most foreign bodies inserted into the urethra or rectum do not cause significant injury even if they are large, sharp, or pointed. These tubular structures are capable of considerable expansion, and they are well lubricated by natural fluids. Patients also learn how to "dilate" these structures so that they will accommodate large objects [2].

CASE REPORT

A 45-year-old healthy male presented to our casualty with complaints of severe abdominal pain, vomiting, and diarrhea. The abdominal pain initially started around the umbilicus and within 2 days spread to the whole of the abdomen. It was continuous in nature, there was an aggravation of pain on eating anything; although, the patient had nausea and loss of appetite too. The vomiting was greenish in color, non-projectile, and persistent for the past 1 day, about 10–12 episodes in the past 24 h. The patient was not able to eat anything. The patient also had 5–6 episodes of light brownish watery diarrhea in the past 24 h of presentation. There was no significant history, family history, or any history of addiction.

On examination, his pulse was 120/min, and blood pressure was 90/70 mmHg. On per abdominal examination, the whole abdomen was tense and guarded. Per rectal examination was normal.

On X-ray abdomen standing, there was free gas under the right dome of the diaphragm (Fig. 1). On abdominal ultrasound, there was free fluid in the abdomen with septations. Laboratory results are as follows: Hemoglobin was 11.21 g/dl, total white blood cell count was 14,200/mm^3, serum creatinine was 1.76 mg/ dl, random blood sugar was 102 mg/dl, and serum glutamic pyruvic transaminase was 35U/L. The urine examination was normal. HIV and HBsAg tests were negative.

After resuscitation and stabilizing the patient, we posted him for emergency laparotomy. For exploration, a lower midline vertical incision was placed. There was fecal peritonitis and surprisingly while looking for the appendix, a large 10–12 inch long and 4 inch wide brinjal (vegetable) lying in the right paracolic region, vertically (Figs. 2 and 3). On further exploration, there was a large tear found at the rectosigmoid junction in the anterior wall. Hence, it was diagnosed to be a case of rectosigmoid junction perforation secondary to rectal foreign body insertion causing peritonitis.

A thorough peritoneal wash was given and the rent was repaired in two layers, and a temporary transverse loop colostomy was done. The patient recovered well and was discharged uneventfully after 18 days. The patient was followed up and was offered a colostomy closure after a period of 6 months.

DISCUSSION

Anal masturbation is autoeroticism focusing on the anal area. For humans, common methods of anal masturbation include the insertion of fingers or sex toys such as butt plugs or anal beads. Stimulation with one or more fingers is most common [3]. Anal

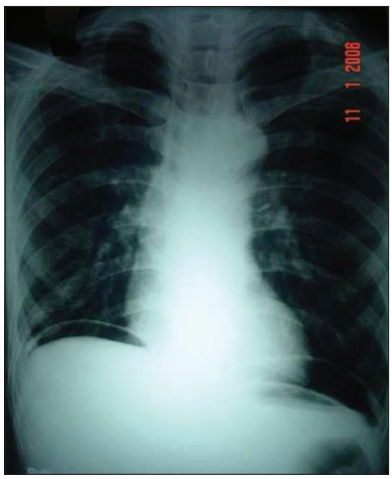

Figure 1: X-ray chest showing free gas under both domes of the diaphragm

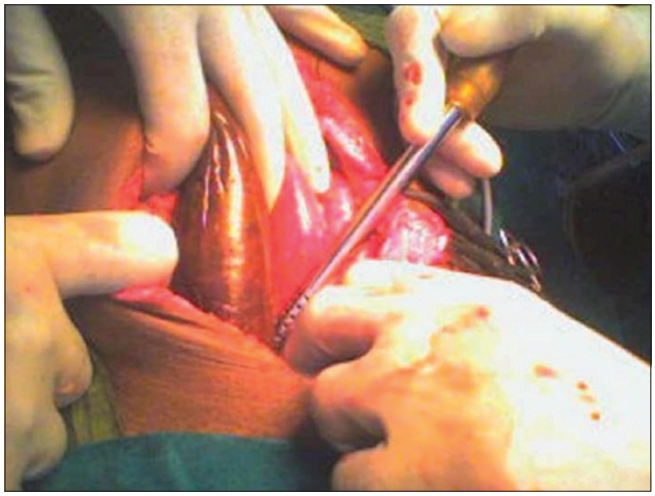

Figure 2: Visible intraperitoneal large vegetable foreign body in the paracolic region (brinjal)

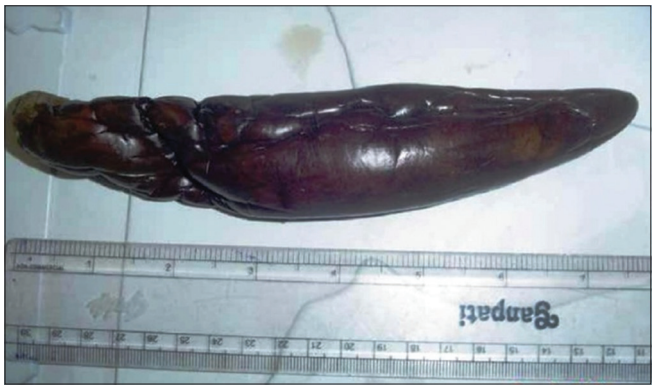

Figure 3: Extracted foreign body (large brinjal) 10 inch long

sexual eroticism is a fact of modern life and a part of the male homosexual relationship [4].

The etiology of the insertion of rectal foreign bodies includes anal eroticism, assault, accidents, attempted relief of perianal diseases, stressful social problems, depression, and schizophrenia [5]. Adequate relief of pain and relaxation of the anal sphincter are prerequisites for successful withdrawal of rectal foreign bodies, and only 4% of cases require laparotomy [5]. Usually, the patients do not admit the insertion of foreign bodies, which may result in late diagnosis with the risk of perforation [5], similar to our case where till the end, the patient did not give any such history.

The presentation of these patients varies from asymptomatic cases to florid peritonitis depending on the type of the rectal foreign bodies, time of insertion, the way of insertion, and the presence or absence of non-professional intervention to retrieve them [6]. A similar case has been reported, wherein a 60-year-old man was found in the emergency unit with a history of cricket ball insertion in the anus for pleasure, who had frank peritonitis, and on exploratory laparotomy was found to be suffering from the anterior wall sigmoid colon perforation with fecal peritonitis. The patient initially recovered but later succumbed on the 33rd day due to multiorgan system failure [6].

Among the foreign bodies, prevailing was plastic and glass bottles, cucumbers and carrots, and wooden and rubber objects in the form of phallus.Other objects have been reported as well [6]. The anus and rectum are specifically designed for expelling waste from the body. The tissue in those areas is designed for things passing out of the body, not vice versa. Furthermore, since there is no natural lubrication in the anus or rectum, intercourse can cause perforation, fissures in the wall of the rectum [7].

All patients with suspected perforation should be given antibiotics and demand immediate laparotomy. Rectal perforation requires primary repair and defunctioning or loop colostomy [8], our case was also managed on a similar line.

Colorectal foreign bodies' clinical presentation varies in severity. When there are no complications, the removal is possible and easier through the transanal route under general anesthesia. The acute generalized peritonitis secondary to perforation is the most dangerous complication due to the colonic septic environment. Foreign bodies discovered in the literature are various in nature. Ball pen is exceptional in all the findings of colorectal foreign bodies [9].

Patients may delay their presentation due to embarrassment, fear of stigmatization, or ignorance regarding the seriousness of their symptoms. To diagnose the cause accurately, a sensitive approach in gaining history is mandatory, which will otherwise omit valuable clues [10].

The main reasons given for the presence of foreign bodies include pruritus ani, accidental insertion, alleged assault, drug smuggling, iatrogenic (e.g., migration of colonic stents), and psychosexual motives. Many different objects have been noted in the literature varying from bottles, vibrators, fruits and vegetables, tools, and miscellaneous items, for example, light bulbs, candles, balls, and flashlights. The age of patients ranges from young to middle aged. Men are more likely to present than women. Women are more likely to have vaginal foreign bodies.

The complications of insertion of these materials include rectal bleeding, mucosal lacerations, anorectal pain, bowel perforations, abscesses, and rarely death. The management of these cases varies from simple manual retrieval with or without general anesthetic or using a sigmoidoscope, Foley catheters, or even cyanoacrylate adhesive attached to the object to aid removal. Laparotomy may

need to be performed depending on the object's size, shape, composition, and position [11].

CONCLUSION

A high index of suspicion is required. Due to embarrassment, patients usually do not give any history of anal insertion of a foreign body. We present a rare case of rectal perforation due to foreign body insertion, in which the patient did not give any such history and abdomen was explored with a provisional diagnosis of bowel perforation and then finding a large vegetable foreign body lying next to cecum, which at first glance seemed to be a huge appendix. On further exploration, a large rectal perforation was found. It was managed as per the usual line of management.

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