

## Case Series

# An unusual presentation of foreign body rectum

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### ABSTRACT

Retrieval of rectal foreign body (FB) is a surgical dilemma. Variables including FB size, shape, make, time of insertion, presentation in ER, associated injuries, local edema, contamination, reluctance to seek medical aid, multiple unsuccessful attempts for self-retrieval masked by improper history and concealing the actual facts makes surgical management challenging. In this study, two unusual cases of FB in rectum and retrievals were presented. Case 1 was a 22 year old boy with a metallic glass tumbler in rectum reported after 12 days with constipation and pelvic pain. Repeated self-attempts for removal by the patient further pushed the FB upwards. Retrieval of rectal FB was done from rectum with repair and diversion colostomy which was closed later. Patient confessed this was his thirteenth attempt with the same object with successful retrieval all the time in last nine months. Case 2 was a 27 year old boy who inserted a sharp iron rod (used for picking ice) in the anal region which migrated to sigmoid colon without perforation of the viscera. Patient reported after three days with sharp shooting pain in left lower abdomen which aggravated on defecation. Abdominal examination revealed no sign of peritonitis, X-ray and CECT abdomen unexpectedly revealed no viscera perforation. Retrieval of FB stuck at sigmoid colon was undertaken with repair and diversion colostomy and closed later. From the study it was concluded that the retrieval of FB with proper psychological evaluation along with rehabilitation of the patient in society was a multidisciplinary management. Actual algorithm of management of these cases was beyond the surgical clinics and one-time emergency FB retrievals.

**Keywords:** Foreign body, Trans anal minimal invasive surgery, Local edema

### INTRODUCTION

FB insertion in anus and rectum has been reported since 16th century. Reluctance to seek advice, concealing details of the object, attempts of unsuccessful retrieval and undue delays since insertion makes retrieval of FB a surgical dilemma. Patients of FB insertions belongs to all age groups and backgrounds with attention seeking behavior, poor judgment, drug influence, alcohol and other psychological behavior problems.<sup>1</sup> Predominant in

urban population in all ages, ethnic cultures with male predominance in third to fourth decade of life.<sup>2,3</sup> FB in rectum are potentially hazardous with mucosal injury and perforation peritonitis, therefore, history, X-ray and CECT (abdomen) is mandatory, when more than 24 hours has elapsed since insertion because multiple unsuccessful attempts and manipulation may results in injuries to viscera.<sup>2</sup> Even sliding Foley's catheter, obstetrician delivery forceps vacuum extractors may assist per anal retrieval when FB is not tightly impacted.<sup>2</sup>

Manual retrievals must be undertaken under sedation after peritonitis is excluded. Any sentiment of fear and shamefulness arising from the situation must be dispelled. However, the surroundings and circumstances compelling the patient for insertion of foreign body in the anus and rectum (polyembolokomania) should be evaluated.<sup>4</sup> Furthermore, an assessment of personality disorder, psychological and social rehabilitation should be undertaken with close monitoring of circumstances and surroundings.

## CASE SERIES

### Case 1

A 22 year boy with normal IQ and physical appearance presents with a metallic tumbler inserted in rectum. After gaining confidence of the patient, he confessed that thirteen attempts were undertaken earlier by the patient with successful self-retrievals in last nine months with the same metallic tumbler. This was done to gain sexual satisfaction and mood elevation for combating his depressive episodes. He presented to ED after 12 days of insertion but was passing stool with difficulty for last 11 days with severe lower abdomen pain and absolute constipation of one day duration. PR examination revealed FB stuck much higher up. X-ray abdomen showed FB in rectum with no free gas. The metallic tumbler was stuck at acute angle in the upper third of rectum. Laparotomy was done and FB stuck in the rectum was manipulated with multiple rotations and gradually successfully pushing it out from rectum after opening the rectum with minimal injury and complete retrieval. Rectum repair done with diversion colostomy which was subsequently closed later. Patient is currently being closely monitored with timely psychological assessment.



**Figure 1: Plain X-ray abdomen showing FB stuck up in rectum.**



**Figure 2: Operative photograph of FB retrieval from rectum.**

### Case 2

A 27 year old boy with normal appearance and IQ inserted sharp slightly curved iron rod (pointed at one end and blunt at other) measuring 12 cm in length (used for ice pricking) to treat his constipation which has disturbed his routine life. He had attempted the same maneuvers seven times earlier for self-treating his constipation but always used the blunt side pointing towards anal region. This time, he unknowingly pointed the sharp edge inside the anal region taking it little further than the usual last attempts. He was unable to retrieve it back and reported to emergency after lapse of three days complaining of sharp shooting pain in the abdomen that aggravated while defecating. On examination, there were no sign and symptoms of peritonitis and CECT abdomen was confirmatory of FB with no visceral injury. FB was traced from rectum and retrieval done from sigmoid colon with diversion colostomy which was closed later. Further, the patient was evaluated to exclude any obstructive cause of constipation and currently undergoing psychological treatment and close follow up.



**Figure 3: Ice picking rod 12 cm in length.**



Figure 4: Plain X-ray showing FB with sharp pointed edge.

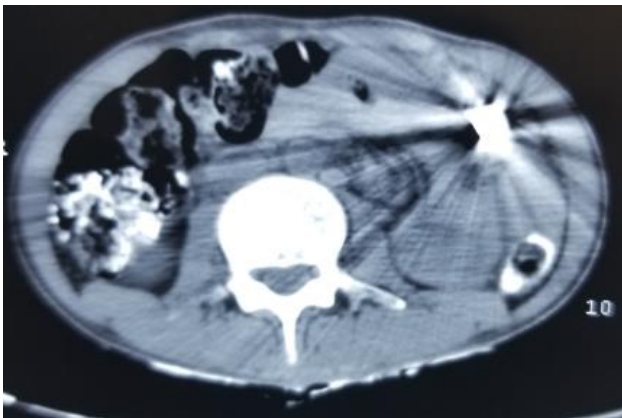


Figure 5: CECT showing a metallic object.



Figure 6: CECT abdomen with FB in sigmoid colon.

## DISCUSSION

Contextually, retrieval of FB is a multimodal approach with psychological considerations to establish the motivation and predisposing circumstances leading to FB insertion; counseling for less harm reduction strategies and managing hospital staff reaction towards the patient during the hospital stay.<sup>3</sup> Other important facets of patient's care include cautious elucidation of predisposing surroundings by primary care physician, technical management of retrieval of FB by the surgeon, infection control specialist focusing on infection and re-infection, psychiatrist assessing the mental status with emphasis on avoiding self-injury, erotic pleasure, factitious illness or psychosis with individual management guided by psychiatrist for lifestyle modification and rehabilitating back in the society.<sup>3</sup>

FB insertion associated with exploratory adventures in children, concealment of drugs, smuggling and sexual arousal account for 50% of cases, while self-treatment of constipation, hemorrhoids, pruritis-ani accounts for 25% of cases with male:female ratio of 3:1.<sup>4</sup> Self-treatment of anal and rectal diseases, criminal assault, homicidal, accidental, sexual gratification are few of the causes of FB insertion in the rectum and algorithm of retrieval depends on position, make of FB and relation to recto-sigmoid junction.<sup>5</sup> Further with reportedly, male:female ratio being 3:1 and average age 44.1 years, 42% of FB belonged to common household objects such as glass and bottles, with majority of cases reporting within 24 hours with unsuccessful trans anal retrievals with or without complications.<sup>6</sup>

Relating to FB insertion, only emergency room admissions data can be traced. Delayed presentation in ER because of shame, embarrassments and failure of self-retrievals may present with bowel incontinence, obstruction, mucus discharge, chronic pelvic pain, bleeding per rectum, frank peritonitis with free gas in radiograph which influences the decision regarding approach and successful retrieval depends on availability of instruments, skill of the surgeon, shape, size, type and make of the FB.<sup>7</sup>

Glass is commonly encountered by emergency care physicians.<sup>8</sup> Smiley in 1919 reported glass tumbler retrieval from rectum.<sup>9</sup> FB rectum may be a presentation of Munchausen syndrome.<sup>10</sup> FB insertion ostensibly for sexual gratification for orgasm with libido or mere orgasm seeking behavior should not be underestimated.<sup>11</sup> Furthermore, patients with impaired judgment, hallucination and delusion with psychosis may insert FB in atypical psychotic states.<sup>12</sup> Repeated depressive episodes may require repeated hospital admissions with FB insertion.<sup>13,14</sup> Attention seeking disorders, maligners seemingly deliberately insert FB as factitious disorder with illness and pathological lying.<sup>10,15</sup> Secondary gain in adolescents and middle aged with borderline personality disorders to gain shelter and avoid duty is frequently

seen, deceptively, patients of delirium, dementia, may be confused while inserting FB in rectum.<sup>16</sup>

Clinically, palpable FB retrieval can be attempted by anal dilatation by speculum, rectal insufflations.<sup>2,18</sup> Valsalva's maneuver during retrieval may facilitate the process.<sup>19</sup> Further, high rectal FB can be manipulated by endoscope snares and bowel insufflations.<sup>2</sup> Tanning spray as FB in the rectum was retrieved by 40 mm pneumatic dilator balloon (Rigiflex (R) boston scientific) used in achalasia cardia by gentle traction and pull after passing it beside the FB.<sup>1</sup> Endoscope extraction with accessories as (snare, achalasia cardia balloon, trans anal forceps) or manual extraction are the common approaches, but when objects are retained more than 48 hours and size greater than 10 cm, formal exploratory laparotomy is warranted.<sup>1</sup>

Laparoscopically pushing rectal FB distally facilitating per anal retrievals with trans-peritoneal pressure is another technique.<sup>5,20</sup> Left iliac region pressure helps in dislodging FB down and with stabilization of rectum.<sup>21</sup> FB pushed down requires close monitoring for 24 hours with rigid/flexible endoscopy examination for excluding rectal injury and X-ray abdomen for free gas.<sup>4</sup> Residual colonic laceration must be repaired primarily and diversion to be planned in contaminated cases and Hartman procedure in circumferential injuries.<sup>1</sup> Trans anal failed retrievals cases can be attempted by polypectomy snare with flexible sigmoidoscope, biopsy forceps or inflated balloons with guide wire and fluoroscopy.<sup>2,21</sup> TAMIS is minimally invasive access with anal sealing for insufflations, followed by laparoscopic instruments guided for FB retrievals.<sup>22,23</sup>

Mental health caretakers should be on priority till patient is rehabilitated back in society.<sup>21</sup> Medical record review in UK reveals, 40% of FB insertions are misadventures with 90% of them removed Trans-anal route and records of psychiatric assessment, follow up and referrals to mental health services are not available even for the identified case.<sup>24</sup>

## CONCLUSION

FB cases are sensitive issues and patient and staff reactions are important to handle after the obvious truth of retrievals. It may be genuine concern for avoidance and revulsions by patients. Breach in patient's trust, privacy, sharing of radiological images, videos via cell phones should be discouraged. Patient should never be made to feel ashamed of the act while appraising them about the harm and possible complications of repeated injury.

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