



CASE STUDY

ACCIDENTAL PER-RECTAL INJURY BY GLASS BOTTLE DUE TO FALLING FROM TREE

*Dr. Shyam Prasad Keshri, Dr. Shashi Kumar and Dr. Vinay Pratap

RIMS, Ranchi, India

ARTICLE INFO

Article History:

Received 15th January, 2017
Received in revised form
18th February, 2017
Accepted 07th March, 2017
Published online 20th April, 2017

Key words:

Management, Rectal foreign body,
Exploratory laparotomy with loop
ileostomy.

ABSTRACT

Foreign Body (FB) within the rectum occurs infrequently and its management is challenging for the emergency physicians due to variation in type of objects, host anatomy, time of insertion, and amount of local contamination. Usually, the presentation is late after multiple unsuccessful attempts for the removal of the FB by patients themselves at home. We report a 35-year-old male patient presented to the emergency department with an FB (glass bottle) in the rectum inserted due to falling from tree. The patient was managed by exploratory laparotomy with successfully removal of FB with primary closure of rectal rent with loop ileostomy was done. We reviewed the management options from the currently available literature.

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Citation: Dr. Shyam Prasad Keshri, Dr. Shashi Kumar and Dr. Vinay Pratap, 2017. "Accidental per-rectal injury by glass bottle due to falling from tree", *International Journal of Current Research*, 9, (04), 48885-48886.

INTRODUCTION

The incidence of rectal foreign bodies (RFBs) is unknown. Foreign body insertion in the rectum has been sporadically described in the surgical literature, with the earliest reports dating back to the 16th century. RFBs present a challenge to clinical management and known for potential complications. Whether done for purposes of sexual gratification or not, voluntarily or accidentally, the reported incidence of RFBs is rather rare with only isolated published case reports or case series. The incidence of RFB is rising because of increasing use of different object for anal sex. Most of the objects are introduced through anus; however, sometimes, an FB is swallowed, passed through the gastrointestinal track, and held up in the rectum. We report a 35-year-old male patient presented to the emergency department with a FB (glass bottle) in the rectum inserted due to falling from tree.

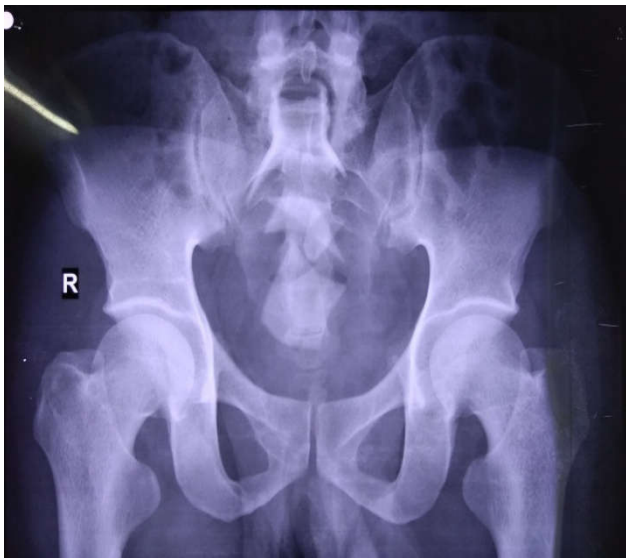
Case report

A 35-year-old male presented to the emergency room with the history of inserting a glass bottle due falling from tree accidentally 8 hours earlier. The failure of repeated attempts of self-removal brought the patient to the hospital. Vital signs were PR-88/min; BP-140/90mmHg. On Abdominal examination tenderness and rigidity present in lower abdomen. FB was not palpable per abdomen. Per-rectal examination

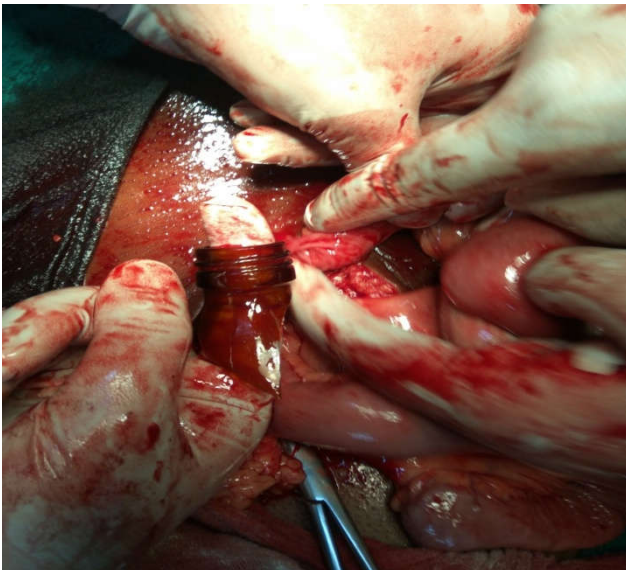
multiple glass pieces touched to the tip of finger; anal tone normal; mild abrasion present around peri-anal region; withdrawing finger stain with blood. The manual removal was impossible due to multiple breakage glass pieces. X-ray of the abdomen showed the multiple glass pieces in the lower abdomen and pelvis. Under general anaesthesia exploratory laparotomy with successfully removal of FB with primary closure of rectal rent with loop ileostomy was done. Post-op was uneventful. Patient was discharged 12th post-op day. On follow-up patient condition was well. After three-months ileostomy closure was done without any post-op complications.

DISCUSSION

RFBs, even though rather infrequent, are no longer considered as rare presentation in emergency departments and their incidence is increasing, specifically in urban populations. Reports of FB within the rectum are uncommon in Asia. Majority of case series are reported from Eastern Europe. Males are commonly affected. The FBs commonly reported were plastic or glass bottles, cucumbers, carrots, wooden, or rubber objects. The object length varied between 6 and 15 cm, and larger objects were more prone to complications. Vague abdominal pain, rectal bleeding or pain, and sometimes constipation are the common presenting symptoms. Signs of infection or perforation may be present in complicated cases. Careful abdominal examination should be done to rule out peritonitis. Per-rectal examination is the cornerstone of the diagnosis, but it should be performed after X-ray of the



x-ray shows pieces of glass bottle



per-op pieces of glass bottle

abdomen to prevent accidental injury to the emergency physician from sharp objects. Laboratory evaluations are not very helpful in the patient with RFB. If the patient has a suspected perforation, the white blood cell count may be increased along with acidosis. Radiological evaluation is far more important than any laboratory test. X-rays of the pelvis and abdomen help in locating the FB position and to rule out intestinal perforation. Computed tomography of the abdomen and pelvis may be considered if the RFB has been in place for more than 24 hours. Majority (90%) of the cases are treated by trans-anal retrieval. Trans-anal removal should be under direct vision. Hard objects are potentially traumatic and tend to migrate upward. Colonoscopy removal is also reported with good success. However, limited studies in literature restrict the major role of colonoscopy. Laparotomy is only required in

impacted FB and/or with perforation peritonitis. Even with laparotomy, the aim is trans-anal removal and closure of perforation with diversion colostomy. Postretrieval colonoscopy and X-ray are mandatory to rule out colorectal injury.

Conclusion

A systematic approach for the management of RFB is proposed to avoid pitfalls. Minimal invasive technique should be preferred; however, when these techniques are not available or cannot extract the FB, surgery is required. Per-rectal examination is the cornerstone of the diagnosis, but it should be performed after X-ray of the abdomen to prevent accidental injury to the surgeon from sharp objects. On table proctoscopy and X-ray are mandatory to rule out anal canal injury and removal of all glass pieces.

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