FOREIGN BODY IN THORACOABDOMINAL PARIETES DUE TO PENETRATING INJURY : A CASE REPORT

Pradeep Kumar Gupta [1], Vijay Verma [2*], Shaitan Singh Rathore [3], Mahendra Choudhary [4], Lakhan Kumar Purohit [5]

[1.]Post Graduate Student , [2] Associate Professor, [3]Senior Professor, [4]Assistant Professor, [5]Senior Resident, Department of Surgery, Dr. S.N. Medical College , Jodhpur, Raj.
*__Corresponding author:-__ Dr. Vijay Verma, Email Id:- vermavijay71@yahoo.com ,Mobile No.9649919723

ABSTRACT

Introduction: Penetration of foreign body in thoracoabdominal wall is commonly seen in accidents , assaults and suicidal acts.

Case Presentation:A 30-year old male admitted to our hospital with history of foreign body stuck in abdominal wall from scrotal entry wound.On physical examination,the foreign body was palpable in anterior abdominal and chest wall extruding from left scrotal penetrating wound.Patient operated &foreign body retrieved without injuring adjacent structures & discharged with uneventful recovery.

Discussion: Proper history, physical examination, investigations and operative procedure are very helpful in management of foreign body in abdominal wall.

Conclusion: Foreign body in subcutaneous plane of anterior thoracoabdominal parietes extending from scrotum to chest wall without damaging any organ is rare in litereture. Timely retrieval of foreign body without injuring adjacent structures by giving minimal incision is vital in such cases.

Key Words: Foreign body,wooden stick, thoracoabdominal parietes

INTRODUCTION

Penetrating abdominal trauma is due to stabbings, ballistic injuries, and accidents.These injuries may be life-threatening because abdominal organs bleed profusely.[1] Foreign body may penetrate into peritoneal cavity that cause injury to intra-abdominal organs ,mesentery or vessels[2]. Here we report a case of large wooden stick (50 cm length and 3 cm diameter)foreign body in anterior thracoabdominal wall due to penetrating injury as a result of fall from height.

Case Presentation

A 30-year old male attended the emergency department at Mathura Das Mathur Hospital, Jodhpur, Rajasthan, India with foreign body in anterior thoracoabdominal wall.Patient was referred from the nearby health centre.Patient was conscious and oriented at presentation. Patient gave history of fall from tree approximately 4 meter height with wooden stick inserted through the scrotal entry wound to abdominal wall.Patient gave no history of any active bleed,vomiting or haematuria.On examination, patient's vitals were found to be stable,no active bleeding was present externally.On per abdomen examination, A wooden stick foreign body palpable from left hemi-scrotum to left chest wall approximate 40 cm in length.The foreign body was extruding approximate 10 cm out of scrotal wall.Entry point of foreign body was left hemi-scrotum and no exit point seen.On inguino-scrotum examination, a 4x4 cm wound in left hemi-scrotum, left testis palpable in left

inguinal region and tender.Foley's catheter was inserted without any difficulty and urine was clear, 400 ml stat. On investigation, Hb was 12.0 g/dl and W.B.C. count was 14,740/uL, Ultra-sonography of abdomen & pelvis and inguino-scrotal region was suggestive of large foreign body extending from left hemi-scrotum into abdominal wall in left inguinal region,left lumbar & left hypochondrium reaching upto left chest wall .Also, left testis appeared normal in size ,deviated to right side with low vascularity in left inguinal region.Patient was initially treated with intra-venous fluid and antibiotics.

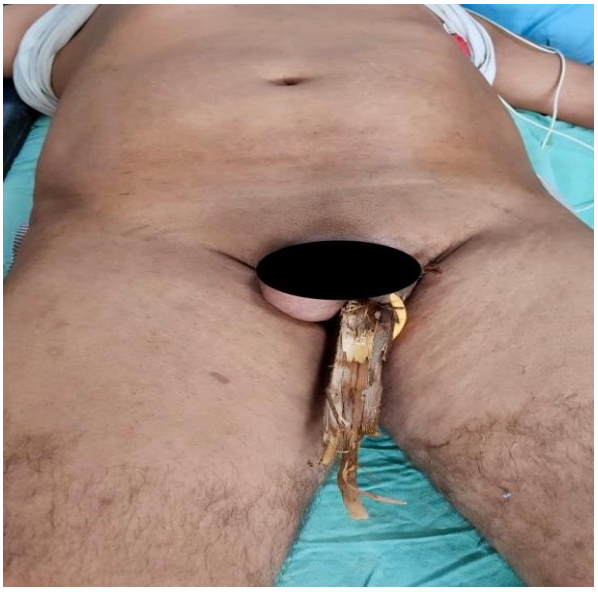

Figure 1: Pre-operative photograph showing foreign body.

Figure 2: Wooden stick foreign body retrieved from abdominal wall.

Patient shifted to operation theater after informed consent & operated under General anaesthesia.Two incisions,one longitudinal approx. 10 cm length over the foreign body which was approx. 6-7 cm below to the left nipple, approx. 4-5 cm lateral to midline,other oblique in left iliac fossa over the foreign body which was approx. 5cm in length given and stick palpated in whole length & was confirmed to be in subcutaneous space in anterior abdomen wall .The foreign body retrieved out without injuring muscles and aponeurosis , left orchidopexy done .Scrotal and abdominal wound repaired with vaccum suction drain placed in situ .Patient's recovery was uneventful with drain removed on 3rd postoperative day.Patient discharged with clinical satisfactory response on the 5th postoperative day.

Discussion

Complications from penetrating abdominal trauma depends on the organ involved,time to treatment and how many organs are involved.The lowest mortality is in patients who sustain just a superficial injury to the abdomen wall but if there is penetration of peritoneum,it is associated with hypotension,acidosis and hypothermia and can lead to mortality. The mortality rate is greatest in those who suffer a concomitant vascular injury of abdominal vessels.Complications of the foreign bodies are: Gastro-intestinal tract perforations,peritonitis, intestinal obstruction,liver abscess and migration to abdominal wall[3,4]

Metals & glass fragments are easily seen on plain x-ray while plastic and wood appear radiolucent and are only seen by CT scan or ultrasonography [5,6]. Patients may present with unrelated symptoms and the detection of foreign body on radiological examination of the abdomen and pelvis may come as a surprise [2]. A plain radiograph of a sample piece of suspected foreign body is very informative.Radiograph with the point of entry marked by a radio-plaque marker and immediate pre-operative radiograph should also be taken to decide the location.Ultrasound is usually informative and has a role in foreign body removal.Depending on the injury, these

patients often need some rehabilitation to get back to their pretrauma level of function[7] .Surat Phonsobat et al showed patients with penile and scrotal injuries (ie those with injuries superficial to Buck's or dartos fascia) may undergo nonsurgical treatment of the penetrating external genital injury with minimal morbidity.[8]

CONCLUSION: Foreign body entering from scrotum extending upto chest wall in subcutaneous plane without damaging other structures is rare in literature. Timely retrieval of such foreign body without injuring adjacent structures by giving minimal incision is vital in such cases.

References

1. Lotfollahzadeh S, Burns B. Penetrating Abdominal Trauma. [Updated 2021 Aug 27]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2021 Jan-. Available from: https://www.ncbi.nlm.nih.gov/books/NBK459123/

2.Harjai MM, Gill M, Singh Y, Sharma A. Intra-abdominal needles: an enigma (a report of two cases).Int Surg 2000;85(2):130-132.

3.Alam Z, Aziz M. Foreign body in abdomen.Bangladash J Med Sci 2015; 14: 210-12.

4.Chan KW. An unusual case of foreign body in the anterior abdominal wall.J Clin Med Res 2010; 2: 93-5.

5.Sutton D et al.Textbook of radiology and imaging,6th edition.Vol 2,Churchill Livingstone,1998; 1394-1395.

6.Rumack CM et al. Diagnostic ultrasonography ,2nd edition.Vol 1,Mosby, 1998;321.

7.Malkomes P, Stormann P, EI Youzouri H, Wutzler S, MarziI,VoglT,Bechstein WO, Habbe N. Characteristics and management of penetrating abdominal injuries in a German level I trauma center. Eur J Trauma Emerg Surg.2019 Apr;45(2):315-321.

8.Phonsombat S, Master VA, McAninch JW. Penetrating external genital trauma: a 30-year single institution experience. J Urol. 2008 Jul;180(1):192-5; discussion 195-6. doi: 10.1016/j.juro.2008.03.041. Epub 2008 May 21. PMID: 18499189.