Journal Homepage: -www.journalijar.com

INTERNATIONAL JOURNAL OF ADVANCED RESEARCH (IJAR)

Article DOI:10.21474/IJAR01/18519
DOI URL: http://dx.doi.org/10.21474/IJAR01/18519

RESEARCH ARTICLE

CASE REPORT ON OBSTRUCTED OBTURATOR RICHTER HERNIA MANAGED BY OPEN PREPERITONEAL MESH REPAIR

Dr. Rakesh Patel[1], Dr. Vishal Desai[2] and Dr. Vinayak Dhinsi[3]

1. AssistantProfessor,DepartmentofGeneralSurgery, GMERSMedicalCollegeandCivilHospitalHimmatnagar.
2. SeniorResident, DepartmentofGeneralSurgery, GMERSMedicalCollegeandCivilHospitalHimmatnagar.
3. PostGraduate, DeptofGeneralSurgery, GMERSMedicalCollegeandCivilHospitalHimmatnagar.

Manuscript Info

Manuscript History
Received: 05 February 2024
Final Accepted: 08 March 2024
Published: April 2024

Key words:-
Obstructed Obturator Hernia, Intestinal Obstruction, Preperitoneal Mesh Repair, Lean Body Mass Multiparous Elderly Women

Abstract

Introduction: Obturator hernia is rare abdominal hernia.It occurs when part of the pelvic contents protrude through the obturator foramen adjacent to Obturator vessels and nerve.It is a diagnostic challenge in the emergency department since the signs and symptoms are non-specific and the risk of strangulation is high in such hernias. It often occurs in elderly, emaciated and thin lean body mass women.The patient may present with intestinal obstruction with diffuse abdominal pain, nausea and vomiting and constipation,because of diagnostic difficulty they often present late and most of them are diagnosed intraoperatively.

Case report: A 60 years old female patient presented to emergency General Surgery Department of GMERS Medical College Himmatnagar with pain in Right Groin region and diffuse pain abdomen and vomiting associated with constipation since 3 days,k/c/o Hypertension on medication Tab Amlodipine 5mg 1-0-0.On examination -Abdomen distended,tenderness present in Right groin region Abdominal girth 72 cm . Abdomen Xray revealed multiple air fluid levels ,USG Abdomen and pelvis suggestive of Right Groin Hernia and multiple dilated bowel loops with diameter of 3.5 mm suggestive of Intestinal Obstruction (Usg picture is uploaded in fig 2) and as patient was not affordable for CECT Abdomen and pelvis CECT Abdomen and pelvis was not done

Discussion: Emergency lower midline exploratory laparotomy under General Anaesthesia was done and intraoperatively was diagnosed as Obstructed Obturator Hernia as the bowel was found to be protruding into Obturator foramen adjacent to Obturator vessels and Obturator nerve and the bowel was reduced from foramen and was found to be healthy ,single suture was taken over the cooper's ligament and obturator foremen and peritoneum was closed as there was no bowel contamination preperitoneal space was created and 15X15 cm Macroporous light weight polypropylene Mesh was placed and fixed covering all the defects to prevent recurrence and any future groin and Inguinal hernia.

Corresponding Author:- Dr. Rakesh Patel
Address:-Assistant Professor, Department of General Surgery, GMERS Medical College and Civil Hospital Himmatnagar.

Conclusion: Obturator Hernia is a rare form of abdominal hernia but can cause a severe Intestinal Obstruction if it not diagnosed and treated early bowel might result into ischemia and necrosis which can turn into a fatal complication.The elderly female with lean body mass and multiparous women presenting with diffuse pain abdomen and pain in Groin region with vomiting and constipation obstructed Obturator hernia and femoral hernia should always be kept as probable diagnosis.Radiological imaging may yield the diagnosis but in this case as patient was not affordable so ,CECT Abdomen with pelvis was not done and as patient Abdomen Xray had multiple air fluid levels .Emergency lower midline Exploratory laparotomy can be done and if obstructed bowel is found to be healthy then Preperitoneal mesh repair can be done and this procedure has got a good outcome increases the abdominal strength and has got a less recurrence chances.

……....

Introduction:-

Anobturatorherniaisatypeofpelvichernia,inwhichabowelsegmentprotrudesthroughtheobturatorforamenadjacenttotheobturatorvesselsandnerve.Itoccursmorefrequentlyinpatientswithascites,chronicconstipation,andchronicobstructivepulmonarydiseaseandinthinelderlymultiparouswomen.[1]Obturatorherniaisapelvishernia,althoughitaccountsforonly1%offallabdominalwallhernias,obturatorherniahasrelativelyhighermorbidityandmortality(15-25%),mainlyduetodelayeddiagnosiswithinfarctedbowel(60-75%).Rightsidedherniaismorecommonthanleftasleftobturatorforameniscoveredwithsigmoidcolon.Womenaremostoftenaffectedbecausetheirobturatorforameniswiderandtheobturatorcanalismorehorizontal[2].Themortalityrateliteratureddataofbetween11and70%[3].IntroperativelyifthebowelisfoundtobehealthythenitcanbemanagedbyPreperitoneal Mesh Repair.

Casepresentation

A60yearselderlyfemalepatientwithleanbodymasspresentedtoEmergencydepartmentofGMERS Medical college and Civil Hospital Himmatnagar with diffuse pain abdomen andabdominal distension associated with vomiting and constipation and pain right groin since 3days.

History of loss of appetite was present since 3 days with repeated episodes of vomiting and perabdomen examination revealed abdomen was distended tenderness present in right groinregion,Abdominalgirth72cm,sheisaknowncaseofhypertensiononmedicationsince3 yrs,othersystemicexaminationswereunremarkable.

ClinicalDiscussion:-

Accurate diagnosis early in the clinical course is uncommon, and therefore obturator herniashave a high mortality rate[4]. CT scan can be especially useful in cases when physicalexaminationisunrevealingornon-specific[6,7]butinourcaseaspatientwasnotaffordableforCTscanandhadmultipleairfluidlevelsinAbdomenXray,andUsgabdomenwithpelvissuggestive of Acute intestinal Obstruction,to avoid any bowel ischemia or bowel necrosis,patient was taken for Emergency lower midline exploratory Laparotomy and intra operative only a part of circumference of intestine was found to be protruding into Obturator foramen (Richter hernia)and as bowel was found to be healthy ,the defect was closed and Pre peritoneal mesh was placed and fixed , plan of surgery depends on the viability of the bowel andDue early surgical intervention and prompt repair,our patient had uncomplicated postoperative course and was discharged after 5 days.

Conclusion:-

Obturator hernias are rare abdominal hernias and difficult to diagnose.Any elderly women with lean body mass presenting with pain in right groin region and Abdominal distension associated with vomiting and constipation (symptoms of Acute Instestinal Obstruction)Obstructor hernia should never be missed,as misdiagnosed or delay in diagnosis and delay in intervention may lead into bowel ischemia,necrosis,sepsis and death.

Intra operatively if the bowel is found to be viable,In such cases the plan of surgery,wound be to close the defect and pre peritoneal mesh can be placed and fixed for strengthening of the abdominal wall and preventing further recurrence.

Early surgical intervention lead to a favourable outcome.

Ethical approval

I declare on my honour that ethical approval has been exempted by my establishment .

Fig1:-AbdominalXrayshowingmultipleairfluidlevels.

Fig2:-UltrasoundshowingdilatedBowelloops.

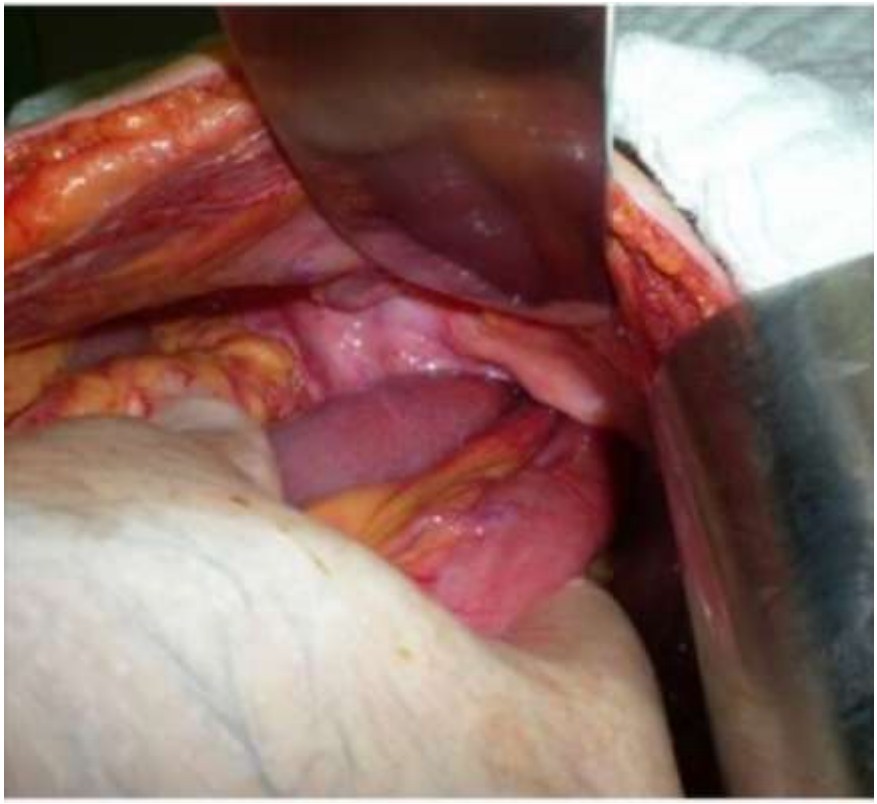

Fig3:-BowelprotrudingintoObturatorforamen.

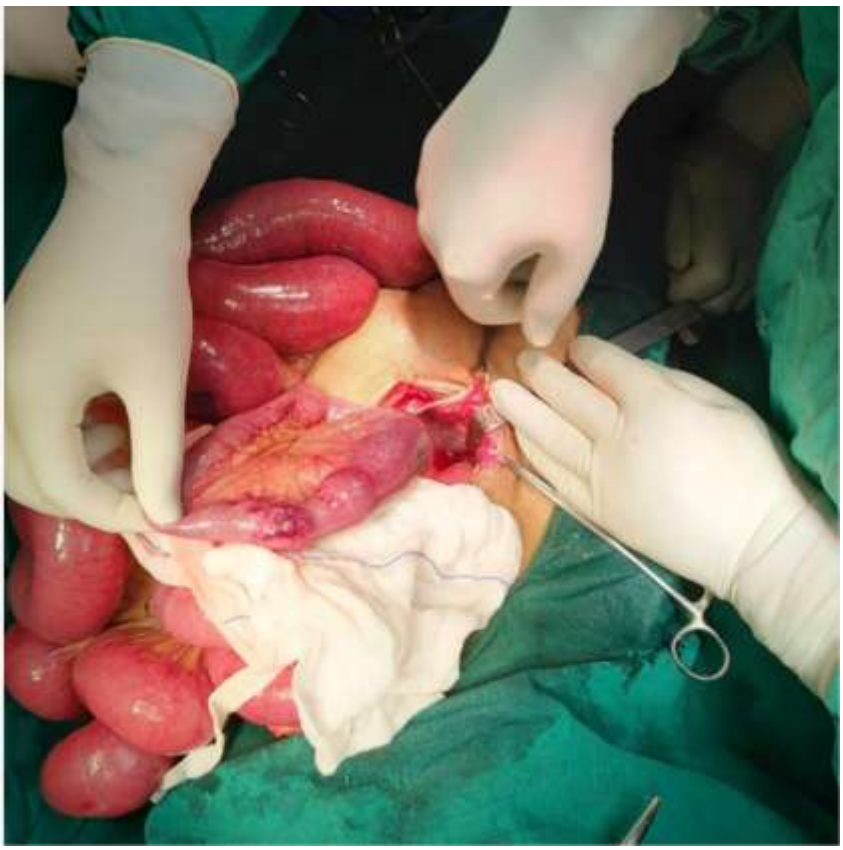

Fig4:-Asonlypartypartofcircumferenceofbowelwasprotruded,ischemicpartofbowel.

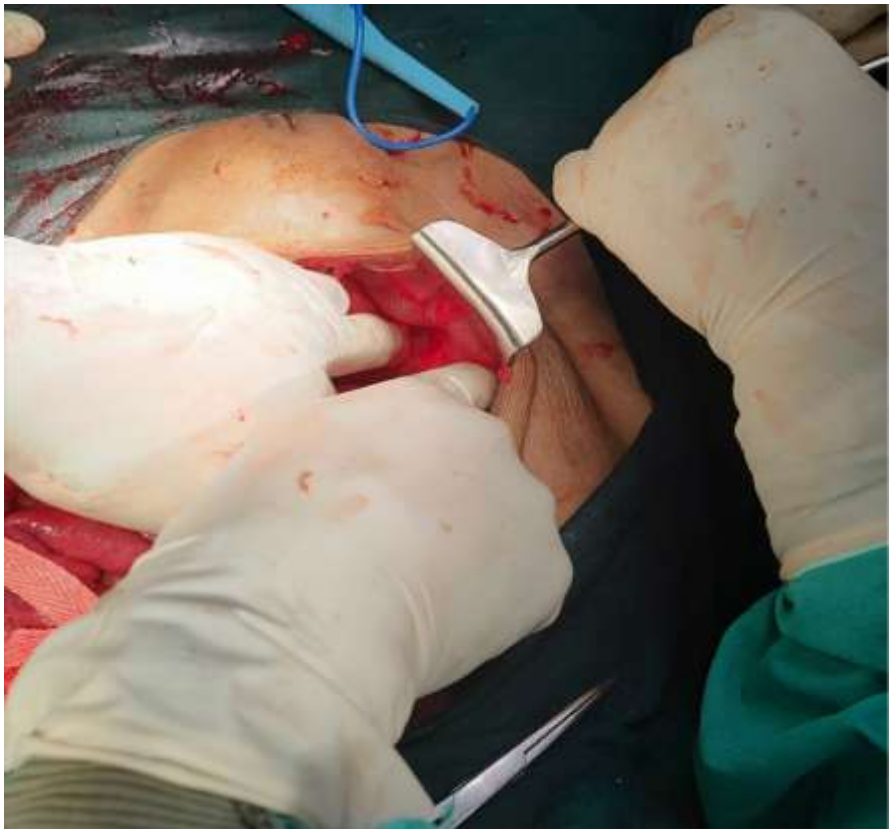

Fig5:-Preperitonealmeshwasplacedafterclosureofdefect.

Consent-tobeattached

Writteninformedconsentwasobtainedfromthepatientattendersforpublicationofthiscasereportandanyaccompanyingimages.AcopyofwrittenconsentisavailableforreviewbytheEditor-in-chiefofthisjournal.

Writteninformedconsentforpublicationoftheirclinicaldetailsand/orclinicalimageswasobtainedfromthepatient.

Funding

None.

Authorscontribution

DrRakeshPatel:studyconceptandoperatingSurgeon.
DrVishalDesai:Correspondingauthorandoperatingsurgeon.DrVinayakRDhinsi:Writingpaperandoperatingsurgeon

CtriNumbet-NotApplicable

Conflictofinterest

Theauthorsdeclarehavingnoconflictsofinterestforthisarticle.

SCARE Checklist

Topic	Item	Checklist item description	Page Number
Title	1	The words "case report" and the area of focus should appear in the title (e.g. presentation, diagnosis, surgical technique or device or outcome).	1
Key Words	2	3 to 5 key words that identify areas covered in this case report (include "case report" as one of the keywords).	1
Abstract	3a	Introduction—What is unique or educational about the case? What does it add to the surgical literature? Why is this important?	2
	3b	The patient's main concerns and important clinical findings.	
	3c	The main diagnoses, therapeutics interventions, and outcomes.	
	3d	Conclusion — what are the "take-away" lessons from this case?	
Introduction	4	A summary of why this case is unique or educational with reference to the relevant surgical literature and current standard of care (with references, 1-2 paragraphs). Nature of the institution in which the patient was managed: academic, community or private practice setting?	3
Patient Information	5a	De-identified demographic and other patient specific information including age, sex, ethnicity, occupation and other useful pertinent information e.g. BMI and hand dominance.	2
	5b	Presentation including presenting complaint and symptoms of the patient as well as the mode of presentation e.g. brought in by ambulance or walked into emergency room or referred by family physician.	
	5c	Past medical and surgical history and relevant outcomes from interventions	
	5d	Drug history, family history including any relevant genetic information, and psychosocial history including smoking status and where relevant accommodation type, walking aids, etc.	
Clinical Findings	6	Describe the relevant physical examination and other significant clinical findings (include clinical photographs where relevant and where consent has been given).	2
Timeline	7	Inclusion of data which allows readers to establish the sequence and order of events in the patient's history and presentation (using a table or figure if this helps). Delay from presentation to intervention should be reported.	2
Diagnostic Assessment	8a	Diagnostic methods (physical exam, laboratory testing, radiological imaging, histopathology etc).	2
	8b	Diagnostic challenges (access, financial, cultural).	
	8c	Diagnostic reasoning including other diagnoses considered	
	8d	Prognostic characteristics when applicable (e.g. tumour staging). Include relevant radiological or histopathological images in this section (the latter may sometimes be better placed in section 9).	
Therapeutic Intervention	9a	Pre-intervention considerations e.g. Patient optimisation: measures taken prior to surgery or other intervention e.g. treating hypothermia/hypovolaemia/hypotension in a burns patient, ICU care for sepsis, dealing with anticoagulation/other medications, etc.	2
	9b	Types of intervention(s) deployed and reasoning behind treatment offered (pharmacologic, surgical, physiotherapy, psychological, preventive) and concurrent treatments (antibiotics, analgesia, anti-emetics, nil by mouth, VTE prophylaxis, etc). Medical devices should have manufacturer and model specifically mentioned.	
	9c	Peri-intervention considerations - administration of intervention (what, where, when and how was it done, including for surgery: anaesthesia, patient position, use of tourniquet and other relevant equipment, prep used, sutures, devices, surgical stage (1 or 2 stage, etc). Pharmacological therapies should include formulation, dosage, strength, route, duration, etc).	
	9d	Who performed the procedure - operator experience (position on the learning curve for the technique if established, specialisation and prior relevant training).	
	9e	Any changes in the interventions with rationale. Include intra-operative photographs and/or video or relevant histopathology in this section. Degree of novelty for a surgical technique/device should be mentioned e.g. "first in-human".	
	9f	Post-intervention considerations e.g. post-operative instructions and place of care.	
Follow-up and Outcomes	10a	Clinician assessed and patient-reported outcomes (when appropriate) should be stated with inclusion of the time periods at which assessed. Relevant photographs/radiological images should provided e.g. 12 month follow-up.	3,4,5
	10b	Important follow-up measures - diagnostic and other test results. Future surveillance requirements - e.g. imaging surveillance of endovascular aneurysm repair (EVAR) or clinical exam/ultrasound of regional lymph nodes for skin cancer.	
	10c	Where relevant - intervention adherence and tolerability (how was this assessed).	
	10d	Complications and adverse or unanticipated events. Described in detail and ideally categorised in accordance with the Clavien-Dindo Classification. How they were prevented, diagnosed and managed. Blood loss, operative time, wound complications, re-exploration/revision surgery, 30-day post-op and long-term morbidity/mortality may need to be specified.	
Discussion	11a	Strengths, weaknesses and limitations in your approach to this case. For new techniques or implants - contraindications and alternatives, potential risks and possible complications if applied to a larger population. If relevant, has the case been reported to the relevant national agency or pharmaceutical company (e.g. an adverse reaction to a device).	3
	11b	Discussion of the relevant literature, implications for clinical practice guidelines and any relevant hypothesis generation.	
	11c	The rationale for your conclusions.	
	11d	The primary "take-away" lessons from this case report.	
Patient Perspective	12	When appropriate the patient should share their perspective on the treatments they received.	2
Informed Consent	13	Did the patient give informed consent for publication? Please provide if requested by the journal/editor. If not given by the patient, explain why e.g. death of patient and consent provided by next of kin or if patient/family untraceable then document efforts to trace them and who within the hospital is acting as a guarantor of the case report.	5
Additional Information	14	Conflicts of Interest, sources of funding, institutional review board or ethical committee approval where required.	3,5

References:-

1. BjorkAKJ,CahillDR.Obturatorhernia.SurgGynecolObstet1988;167:217-22.
2. Guillem, P., Bounoua, F., & Duval, G. (2001). A case of hip pain in an elderly woman. BJR, 73,1233-1234.
3. Yokoyama, T., Munakata, Y., Ogiwara, M., Kamijima, T., Kitamura, H., & Kawasaki, S. (1997).Preoperativediagnosisofstrangulatedobturatorherniausingultrasonography.TheAmericanjournalofsurgery,174(1),76-78.
4. ShipkovCD,UchikovAP,GrigoriadisE.Theobturatorhernia:difficulttodiagnose,easytorepair.Hernia .2004;8(2):155–7.
5. NishinaM,FujiiC,OginoR,KobayashiR,KohamaA.Preoperativediagnosisofobturatorherniabycomputedtomographyinsixpatients.JEmergMed.2001;20(3):277–80.
6. MnariW,HmidaB,MaatoukM,ZrigA,GolliM.Strangulatedobturatorhernia:acasereportwithliteraturereview.PanAfrMedJ.2019;32:144.