



Clinical Presentation and Nursing Management of Obturator Hernia-An Updated Review

Bader Musllm Musllm Albalwi⁽¹⁾, Meaad Saleem Dohem Almutairy⁽²⁾, Meead Othman Alshwaiman, Ibrahim Ali Abdullah Abu Habibah⁽³⁾, Saleh Ali Bunimah⁽⁴⁾, Rana Ibrahim Al Musabbihi⁽⁵⁾, Mayadah Ali Alhazmi⁽⁵⁾, Saleh Talea Sarar Alqahtani⁽⁶⁾, Abdulla Ali Qubuli⁽⁷⁾, Saad Mohamad Saad Alzaml⁽⁸⁾, Rasheeda Saleh Albeladi⁽⁹⁾, Shoug Shadede Albeladi⁽¹⁰⁾

(1) King Khalid Hospital – Tabuk Health Cluster, Ministry of Health, Saudi Arabia,

(2) Ministry Of Health , Saudi Arabia,

(3) Irada Hospital for Mental Health – Jazan, Ministry of Health, Saudi Arabia,

(4) King Faisal Hospital – Al Ahsa, Ministry of Health, Saudi Arabia,

(5) Prince Mohammed bin Abdulaziz Hospital – Riyadh, Ministry of Health, Saudi Arabia,

(6) Al-Farsha General Hospital – Aseer Health Cluster, Ministry of Health, Saudi Arabia,

(7) Eradah Mental Health Complex – Riyadh, Ministry of Health, Saudi Arabia,

(8) Health Control Center – King Khalid Airport, Riyadh, Ministry of Health, Saudi Arabia,

(9) Maternity and Children Hospital – Jeddah, Ministry of Health, Saudi Arabia,

(10) Rabigh General Hospital – Rabigh, Ministry of Health, Saudi Arabia

Abstract

Background: Obturator hernia is a rare and frequently overlooked type of pelvic hernia, predominantly affecting elderly, underweight women. Its deep anatomical location and nonspecific clinical manifestations often result in delayed diagnosis, which contributes to high rates of bowel obstruction, strangulation, and mortality. Despite advances in imaging and surgical techniques, obturator hernia remains a diagnostic challenge in emergency and surgical practice.

Aim: This review aims to summarize the current evidence on the clinical presentation, etiological factors, diagnostic strategies, and nursing and surgical management of obturator hernia, with emphasis on improving early recognition and patient outcomes.

Methods: An updated narrative review of the literature was conducted focusing on anatomy, epidemiology, etiology, clinical features, diagnostic modalities, surgical management options, nursing care, and postoperative outcomes related to obturator hernia. Relevant peer-reviewed studies, clinical reports, and review articles were analyzed and synthesized.

Results: Obturator hernia occurs most commonly in frail elderly women due to pelvic anatomical differences, loss of protective fat, and chronic increases in intra-abdominal pressure. Clinical presentation is often nonspecific and may include bowel obstruction, abdominal pain, or medial thigh pain caused by obturator nerve compression. Computed tomography of the abdomen and pelvis is the diagnostic modality of choice, offering high sensitivity. Definitive management is surgical, with laparoscopic and open approaches both demonstrating effectiveness. Early intervention significantly reduces morbidity and mortality.

Conclusion: Early clinical suspicion combined with timely imaging and prompt surgical management is crucial for improving outcomes in patients with obturator hernia.

Key words: Obturator hernia, bowel obstruction, elderly patients, computed tomography, surgical management, nursing care.

Introduction

Obturator hernia represents a distinct clinical entity within the spectrum of abdominal wall hernias and was first documented in the medical literature by Arnaud de Ronsil in 1724. Surgical management evolved slowly, with the first reported successful repair performed by Henry Obre in 1851. This condition develops when abdominal contents pass through the obturator foramen, creating a hernial defect that may compromise surrounding structures. The hernia sac most commonly encloses segments of the small intestine, although other contents such as preperitoneal fat, omentum, or portions of the large bowel may also protrude. Despite its early recognition, obturator hernia remains uncommon, accounting for

only a small fraction of all hernia types, with reported rates ranging between 0.05 and 1.5 percent [1][2]. Its low incidence contributes to limited clinical familiarity and delayed recognition in many cases. The obturator foramen is a key anatomical feature of the pelvis and is formed by the pubic bone and ischium. In the adult pelvis, the foramen typically measures between two and three centimeters in length and approximately half to one centimeter in width. A thin connective tissue membrane normally seals this bony opening, leaving only a small channel known as the obturator canal. The internal surface of the foramen provides attachment for the obturator internus muscle, while the external surface anchors the obturator externus muscle. These muscular relationships

contribute to stability of the hip joint but also influence the pathway and containment of neurovascular structures traversing the region.

Vascular supply to the area arises from the internal iliac artery, which gives rise to the obturator artery. This vessel divides into medial and lateral branches that course around the margins of the foramen. Alongside the artery, the obturator vein and obturator nerve pass through the obturator canal as they exit the pelvis and enter the thigh. Within this bundle, the obturator nerve occupies the most cranial position and subsequently divides into anterior and posterior branches after leaving the canal. Unlike the rest of the obturator foramen, the canal lacks coverage by the fibrous membrane, creating a site of relative weakness through which herniation may occur. Sex based pelvic differences play a significant role in the epidemiology of obturator hernia. In females, the obturator foramen tends to be wider and more triangular in shape than in males. This anatomical configuration, combined with age related loss of protective fat and muscle mass, predisposes older women with low body mass to herniation through this region. As a result, obturator hernia occurs more frequently in this population group. Laterality patterns are also influenced by pelvic anatomy. The sigmoid colon typically overlies the left obturator foramen, which may offer a degree of protection. Consequently, obturator hernias are observed more often on the right side in both females and males [3].

Clinical presentation often lacks distinctive features, which makes diagnosis difficult. Symptoms may mimic other causes of bowel obstruction or present as vague abdominal or medial thigh discomfort. Because physical findings are often subtle or absent, diagnosis based solely on examination is frequently missed. This diagnostic challenge necessitates a high level of clinical awareness, particularly when evaluating older patients with reduced body mass who present with signs of intestinal obstruction without an obvious cause [4]. In such cases, timely use of computed tomography of the abdomen and pelvis is essential, as imaging provides clear visualization of the hernia and its contents. Definitive management of obturator hernia is surgical. Both open and minimally invasive approaches are used, with selection guided by patient condition and surgeon experience. Delay in operative intervention increases the risk of bowel strangulation and ischemia, which significantly worsens outcomes. Rates of morbidity and mortality are closely linked to the presence of complications and the speed with which surgical treatment is initiated [5][6]. Early recognition and prompt operative management therefore remain central to improving patient prognosis in this uncommon but serious condition.

Etiology

The development of an obturator hernia is closely linked to anatomical and physiological

changes that allow abdominal structures to pass through the obturator foramen. Integrity of the pelvic floor and surrounding soft tissue normally prevents such protrusion. With advancing age, these protective structures lose strength and volume, creating a potential pathway for herniation. Female sex represents a major predisposing factor, as pelvic morphology differs and the obturator foramen is wider in women. Repeated pregnancies further contribute to stretching and weakening of pelvic support structures, increasing vulnerability over time. These changes explain why obturator hernia occurs most often in older women and remains uncommon in younger populations [7]. Nutritional status plays a central role in the etiology of this condition. Rapid weight loss and chronic malnutrition lead to depletion of preperitoneal fat that normally cushions and seals the obturator canal. Loss of this fat reduces resistance at the foramen and facilitates invagination of intra-abdominal contents. Emaciation therefore represents a significant risk factor and is frequently observed in affected patients. The combined effects of aging, female pelvic anatomy, and reduced soft tissue coverage create an anatomical environment in which herniation can occur even in the absence of acute stressors [7].

In addition to structural weakness, sustained elevation of intra-abdominal pressure contributes to obturator hernia formation. Chronic respiratory disease such as chronic obstructive pulmonary disease generates repeated increases in pressure due to persistent coughing. Ascites exerts constant force on the abdominal wall and pelvic floor. Long standing constipation requires repeated straining, while chronic cough acts in a similar manner. These conditions do not cause herniation independently but act on preexisting anatomical susceptibility, accelerating the process and increasing the likelihood of visceral protrusion through the obturator canal [7]. The clinical impact of an obturator hernia depends on the contents of the hernia sac and the presence or absence of vascular compromise. Small bowel involvement occurs most frequently and carries a high risk of obstruction and strangulation. Other structures such as the ovary, fallopian tube, ureter, or surrounding soft tissues may also herniate, leading to varied clinical manifestations [8]. When strangulation develops, ischemia and tissue necrosis may follow, significantly worsening patient outcomes. Understanding these etiological factors is essential for early recognition and timely intervention in high risk individuals.

Epidemiology

Obturator hernia is an uncommon clinical condition with a distinct epidemiological profile that differentiates it from other types of abdominal wall hernias. It is observed predominantly in women of advanced age who have low body mass. This pattern reflects underlying anatomical and physiological factors, including a wider obturator foramen and reduced strength of pelvic floor musculature in

females. Age related loss of muscle tone and connective tissue integrity further amplifies this susceptibility, making elderly women the most affected population group [9][10]. The strong association with frailty and reduced body fat has led to the descriptive term “little old lady’s hernia” in clinical literature, underscoring the characteristic patient demographic. Although obturator hernia carries significant clinical risk, it represents a very small proportion of all hernia types. Reported prevalence ranges from approximately 0.05 percent to 2 percent of all hernias, highlighting its rarity. This low incidence contributes to frequent delays in diagnosis, as many clinicians encounter the condition infrequently during practice. Despite its uncommon nature, obturator hernia is associated with a high rate of complications, particularly bowel obstruction, which elevates its clinical importance beyond what prevalence figures alone might suggest [11]. Laterality patterns are well documented in epidemiological studies. Obturator hernias occur more commonly on the right side than on the left. This asymmetry is attributed to the anatomical position of the sigmoid colon, which typically overlies the left obturator foramen and provides a degree of protective coverage. In contrast, the right obturator foramen lacks such shielding, making it more vulnerable to herniation. This consistent right sided predominance has been reported across multiple studies and patient populations [11][12]. Bilateral obturator hernias, while uncommon, are clinically significant and have been documented in approximately one quarter of cases. The presence of bilateral involvement suggests a generalized weakening of pelvic structures rather than a localized defect. This finding emphasizes the importance of careful intraoperative assessment of both obturator foramina when surgical repair is undertaken [13]. Understanding the epidemiological characteristics of obturator hernia aids clinicians in identifying high risk individuals and maintaining diagnostic awareness in appropriate clinical contexts.

History and Physical

Patients with obturator hernia usually seek care in the emergency department because symptoms progress and interfere with daily function. The clinical history often lacks distinctive features. Many patients report nausea and vomiting linked to bowel obstruction. Abdominal pain is common and may coexist with pelvic discomfort. Pain in the medial thigh or hip may extend into the same side lower limb and resemble radicular pain from spinal disease. Constipation may appear as an early complaint. Some individuals recall similar episodes in the past that resolved without treatment, which may reflect transient herniation or spontaneous reduction [14]. This history can mislead clinical judgment and delay diagnosis. During physical examination, patients often show signs of distress related to pain or intestinal obstruction. Abdominal inspection may reveal distension in advanced cases. Palpation can

demonstrate abdominal or pelvic tenderness. Guarding or rebound tenderness may occur when bowel ischemia or perforation develops. These findings indicate progression to a complicated state that requires urgent intervention. Despite these signs, direct detection of the hernia on examination is uncommon. The obturator foramen lies deep within the pelvis and is covered by muscle and soft tissue. For this reason, the hernia sac usually remains inaccessible to palpation even in thin patients [15][16]. Absence of a palpable mass should not reduce clinical suspicion. Neurological and musculoskeletal symptoms contribute to diagnostic confusion. Pain along the medial aspect of the thigh results from irritation or compression of the obturator nerve. This pain may intensify with movement of the hip joint and may dominate the clinical picture. As a result, patients are sometimes evaluated for orthopedic or neurological disorders rather than intra-abdominal pathology. Awareness of this pain pattern is essential when assessing older patients with unexplained bowel symptoms.

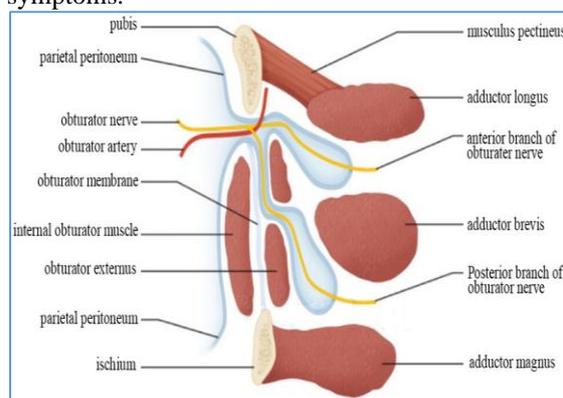


Fig. 1: Obturator Hernia.

Two classical physical signs have been described in association with obturator hernia. These signs support the diagnosis but cannot confirm or exclude it when absent. The Howship Romberg sign refers to pain triggered by extension, adduction, or medial rotation of the thigh. This response occurs when the hernia sac compresses the cutaneous branch of the obturator nerve. The reported sensitivity of this sign is close to fifty percent, which limits its reliability as a screening tool. Its presence should raise suspicion, but its absence does not rule out the condition [17]. The Hannington Kiff sign reflects motor involvement of the obturator nerve. It presents as loss of the thigh adductor reflex while the patellar reflex remains intact. Examination requires placement of a finger over the adductor muscles above the knee followed by percussion with a tendon hammer. Visible or palpable contraction indicates a preserved reflex. Loss of this response suggests obturator nerve compression. This sign shows higher specificity than the Howship Romberg sign, yet it requires technical skill and familiarity with the maneuver. Operator variation affects accuracy, which limits routine use in acute

settings [18]. Overall, history and physical findings in obturator hernia remain subtle and fragmented. Symptoms overlap with gastrointestinal, neurological, and musculoskeletal disorders. Physical signs lack consistency and reproducibility. For this reason, clinical assessment alone rarely establishes the diagnosis. Recognition depends on maintaining suspicion in high risk patients and correlating symptoms with anatomical knowledge. Early identification through careful history taking and focused examination supports timely imaging and surgical management, which directly influences patient outcomes.

Evaluation

Assessment of a patient with suspected obturator hernia relies heavily on imaging because clinical findings are often inconclusive. Computed tomography of the abdomen and pelvis represents the preferred diagnostic modality and should be performed with or without intravenous contrast based on patient status and renal function [19]. CT imaging allows direct visualization of the obturator foramen and can clearly demonstrate the presence of a hernia sac, its size, and the nature of its contents. In addition, CT provides critical information regarding associated complications, including intestinal obstruction, bowel wall thickening, ischemia, necrosis, or perforation. Reported diagnostic accuracy of CT in identifying obturator hernia approaches ninety percent, making it a valuable tool in early detection and management planning [20]. Despite its high sensitivity, CT imaging does not identify all cases. Some patients who are ultimately diagnosed intraoperatively have preoperative scans that either fail to reveal the hernia or do not adequately define its anatomical features. Factors such as small hernia size, intermittent protrusion, or early disease stage may contribute to false negative results [21]. For this reason, absence of definitive findings on CT should not exclude the diagnosis when clinical suspicion remains high. In elderly, low body mass patients with symptoms of bowel obstruction or unexplained medial thigh pain, early surgical consultation is essential even when imaging results are inconclusive. Clinical judgment plays a critical role in preventing diagnostic delay. Laboratory investigations provide supportive information and help assess disease severity and operative risk. A complete blood count may demonstrate leukocytosis in the presence of bowel obstruction, inflammation, perforation, or systemic stress. A comprehensive metabolic panel is important to identify electrolyte disturbances caused by vomiting, diarrhea, or dehydration. Volume depletion may lead to abnormalities that require correction before surgical intervention. In cases where the ureter is involved in the hernia, laboratory testing may reveal elevated blood urea nitrogen and creatinine, indicating obstructive uropathy. Blood typing and screening are routinely performed to prepare for potential

transfusion in the perioperative period. Measurement of serum lactate is particularly valuable, as elevated levels may suggest bowel ischemia or necrosis and signal the need for urgent surgical management.

Treatment / Management

Surgical Intervention

Definitive management of obturator hernia requires operative treatment. Once the diagnosis is established or strongly suspected, surgical consultation should occur without delay. Most patients present with bowel obstruction or evolving ischemia, which makes conservative management inappropriate. Early operative intervention reduces the risk of strangulation, perforation, sepsis, and death. In rare situations where the hernia sac contains only the ureter and no bowel compromise is present, surgery may be postponed temporarily to allow stabilization of renal function. Even in such cases, definitive repair remains necessary to prevent recurrent obstruction and progressive renal injury. There is no single standardized operative strategy for obturator hernia repair. Choice of approach depends on patient stability, presence of complications, surgeon expertise, and available resources. Midline laparotomy and laparoscopy represent the most frequently used techniques. Minimally invasive robotic approaches are increasingly reported and reflect advances in surgical technology [22][23]. Alternative access routes, including retropubic, inguinal, and femoral approaches, have also been described, though they are used less often in contemporary practice [24]. Each technique carries advantages and limitations that must be weighed against clinical circumstances. When feasible, laparoscopic repair is favored due to multiple perioperative benefits. These include reduced intraoperative blood loss, lower postoperative pain, decreased risk of wound infection, diminished incidence of postoperative ileus, and shorter hospital stay compared with open laparotomy. Laparoscopy also allows inspection of the abdominal cavity and identification of associated hernias. However, conversion to open surgery remains appropriate when visualization is inadequate or when extensive bowel resection is required.

Two laparoscopic techniques dominate current practice. The transabdominal preperitoneal approach is most commonly reported. This method permits direct visualization of the hernia sac and its contents, allowing accurate assessment of bowel viability [25][26]. Reduction of the hernia can be performed under direct vision, and compromised bowel segments can be identified promptly. If resection becomes necessary, the surgeon may proceed laparoscopically or convert to an open approach depending on the extent of pathology and patient condition. The total extraperitoneal technique avoids entry into the peritoneal cavity and allows simultaneous repair of the obturator and inguinal regions. This method is generally reserved for patients

without suspected strangulation or necrosis, as it limits evaluation of intra-abdominal organs. Closure of the obturator defect is a critical step in preventing recurrence. Several techniques are available, and selection depends on defect size, tissue quality, and contamination risk. Small defects measuring less than one centimeter may be closed with direct suturing. While technically simple, primary suture repair may carry a higher recurrence rate than reinforcement techniques. Larger defects often require reinforcement due to tension and tissue fragility. Mesh repair is widely accepted when bowel viability is confirmed and contamination is absent. Synthetic mesh provides durable reinforcement and reduces recurrence risk. In cases where mesh placement is contraindicated or technically challenging, alternative methods may be used. These include coverage with peritoneal or periosteal patches, omental interposition, or musculoaponeurotic flaps. Selection of technique often reflects surgeon experience and intraoperative findings rather than strict guidelines. Assessment of the contralateral obturator foramen deserves consideration during surgery. Bilateral obturator hernias occur in a notable proportion of patients, and preoperative imaging may not always exclude contralateral involvement. Exploration of the opposite side can prevent missed pathology and future obstruction. In addition, coexisting inguinal or femoral hernias are sometimes identified during operative exploration. Some surgeons elect to repair these incidental defects prophylactically to reduce the likelihood of subsequent hernia related complications, particularly in frail patients with limited physiological reserve [27].

Manual Reduction

Manual reduction of obturator hernia is rarely successful and is not considered definitive management. The hernia sac lies deep within the pelvis and is generally not palpable on examination. Even when reduction is technically possible, this approach does not permit evaluation of bowel viability and may mask ongoing ischemia. Risk of recurrence remains high because the anatomical defect persists. Rare reports describe successful manual reduction, including cases assisted by ultrasound guidance, followed by delayed surgical repair [28]. These cases represent exceptions rather than standard practice. Given the high risk of strangulation and diagnostic uncertainty, surgical repair remains the preferred and safest treatment strategy for obturator hernia.

Differential Diagnosis

The clinical presentation of obturator hernia is often nonspecific, requiring careful consideration of a broad differential diagnosis. Older adults, who constitute the majority of affected patients, frequently demonstrate atypical signs due to altered inflammatory responses and reduced pain perception, increasing the risk of delayed recognition. Gastrointestinal disorders are primary considerations and include both small and large bowel obstruction,

paralytic ileus, intestinal perforation, gastritis, gastroenteritis, and inflammatory or infectious colitis. Volvulus and appendicitis should also be considered in patients presenting with localized abdominal pain. Abdominal wall and inguinal hernias, as well as diaphragmatic hernias, may mimic symptoms of obstruction or localized pain, making imaging essential. Hepatobiliary conditions such as pancreatitis, biliary colic, cholecystitis, and hepatitis may also produce overlapping presentations, particularly when pain is diffuse or atypical [14]. Cardiac causes, particularly acute coronary syndrome, can obscure the clinical picture, presenting with referred abdominal discomfort or nausea that may mimic a surgical abdomen. Genitourinary pathology is another important category. Ovarian or testicular torsion, urinary tract infection, and pyelonephritis may present with lower abdominal or pelvic pain, urinary symptoms, and systemic manifestations, overlapping with obturator hernia presentations. Vascular conditions, including mesenteric ischemia, abdominal aortic aneurysm, and aortic dissection, must be ruled out promptly because delayed recognition can be fatal. Metabolic disturbances such as diabetic ketoacidosis and hyperosmolar hyperglycemic states may produce nausea, vomiting, and abdominal pain, adding further complexity. Nonspecific causes, including adverse drug effects or withdrawal syndromes, may also confound the diagnostic process. Accurate evaluation requires integration of patient history, physical findings, laboratory testing, and imaging to distinguish obturator hernia from these diverse conditions [14].

Prognosis

Obturator hernia historically carried significant morbidity and mortality due to delayed diagnosis and frequent presentation with bowel obstruction or strangulation. Mortality rates have been reported between 12 and 70 percent, reflecting both the severity of complications and the advanced age, frailty, and comorbidities of affected patients [29][30][31][32][33]. Recent improvements in outcomes are largely attributed to enhanced clinical awareness, widespread access to high-resolution CT imaging, and advances in surgical techniques that allow safer and more effective repair. Patients requiring bowel resection as part of hernia repair face complications inherent to intestinal surgery. Anastomotic leaks, intra-abdominal infections, and ostomy-related dysfunction are recognized risks that may prolong hospitalization and recovery. Hernia repair using mesh also carries potential long-term complications, including infection, migration, or erosion into adjacent tissues. Beyond specific surgical risks, patients undergoing operative management of obturator hernia remain vulnerable to complications common to major abdominal surgery, including venous thromboembolism, postoperative pain, wound breakdown, pulmonary infections, and deconditioning. Early identification and timely surgical intervention are therefore essential for

minimizing mortality and improving functional recovery. The prognosis is closely linked to the rapidity of diagnosis, the presence or absence of bowel compromise, and the patient's baseline physiological reserve, underscoring the importance of vigilant perioperative management [32][33].

Complications

Obturator hernia can lead to a range of complications stemming from entrapment of intra-abdominal or pelvic structures. Bowel incarceration is frequent and may progress to obstruction, strangulation, necrosis, or perforation. Perforation can precipitate peritonitis and sepsis, significantly worsening clinical outcomes. Ureteral herniation, although less common, may produce hydronephrosis and renal dysfunction, necessitating prompt recognition to prevent permanent kidney injury. Compression of the obturator nerve may cause localized pain, paresthesia, or weakness in the nerve's sensory and motor distribution, further complicating the clinical picture. Recurrence is a recognized risk following repair, whether sutures or mesh are used. Contralateral obturator hernia may also develop, highlighting the importance of careful intraoperative assessment and follow-up. Overall complication rates following obturator hernia repair are reported at approximately 11 percent. These include standard postoperative risks such as wound infection, wound dehiscence, pneumonia, pulmonary embolism, sepsis, and anastomotic leak. Mesh-specific risks include infection or migration. The likelihood and severity of complications are influenced by the surgical approach, the presence of ischemic or perforated bowel, and the patient's comorbidities, emphasizing the need for individualized perioperative planning [33].

Postoperative and Rehabilitation Care

Postoperative management focuses on standard surgical care tailored to the patient's clinical status and operative findings. Most patients require hospitalization for pain control, wound care, bowel rest, and gradual dietary advancement. Early mobilization is encouraged to reduce complications such as venous thromboembolism and pulmonary infections. Given the advanced age and frailty of the typical patient population, multidisciplinary involvement is essential. Physical and occupational therapy, as well as nutritional support, optimize functional recovery prior to discharge. Patients may require transfer to skilled nursing facilities when ongoing care needs exceed home capacity. Outpatient follow-up with the surgical team ensures monitoring for recurrence, wound healing, and resolution of preoperative complications. Education regarding activity modification, diet, and signs of infection or obstruction is essential to reduce readmission risk and support long-term recovery [33].

Patient Education

Primary prevention of obturator hernia is limited because anatomical predispositions cannot be

modified. However, management of modifiable risk factors may reduce susceptibility. Addressing malnutrition and cachexia helps maintain intra-abdominal fat that supports the obturator foramen. Controlling chronic conditions that increase intra-abdominal pressure, such as ascites, persistent coughing, or constipation, may mitigate hernia formation or progression. Patient education regarding symptom recognition and prompt presentation for evaluation is critical, particularly in high-risk populations such as elderly, low body mass women [33].

Enhancing Healthcare Team Outcomes

Effective management of obturator hernia requires coordinated interprofessional care. Nursing staff provide critical support through pain control, intravenous fluid administration, antibiotic therapy, and wound care. In cases of bowel obstruction, nasogastric decompression may be required. Emergency providers must promptly communicate clinical suspicion, imaging findings, and potential complications to the surgical team to reduce delays to definitive repair. Radiologists are central to diagnosis, as careful interpretation of CT scans identifies the hernia and informs surgical planning. Surgeons and operative teams perform the repair and coordinate perioperative care, often including intensive monitoring for frail or critically ill patients. Pharmacists, technicians, and rehabilitation specialists ensure adequate analgesia, nutritional support, and mobility restoration. Case managers coordinate safe discharge, arranging home care, skilled nursing, and access to medications and durable medical equipment. A structured, team-based approach optimizes patient outcomes, minimizes complications, and ensures continuity of care from initial presentation through postoperative recovery [32][33].

Conclusion:

Obturator hernia represents a rare but clinically significant surgical emergency that disproportionately affects elderly, underweight women. The condition continues to pose diagnostic difficulties due to its deep pelvic location and the absence of distinctive physical findings. Symptoms frequently mimic more common gastrointestinal, neurological, or musculoskeletal disorders, which contributes to delayed diagnosis and increased risk of bowel strangulation, ischemia, and mortality. Advances in computed tomography imaging have markedly improved diagnostic accuracy and should be utilized early in high-risk patients presenting with bowel obstruction or unexplained medial thigh pain. Nevertheless, imaging does not substitute for clinical vigilance, and a high index of suspicion remains essential, particularly when initial investigations are inconclusive. Surgical repair remains the definitive treatment, with minimally invasive approaches offering advantages in selected patients, including reduced postoperative pain and shorter hospital stays.

Nursing care plays an integral role throughout the patient journey, from early recognition and preoperative stabilization to postoperative monitoring, rehabilitation, and patient education. Multidisciplinary collaboration among emergency physicians, surgeons, nurses, radiologists, and rehabilitation specialists is critical to optimizing outcomes. Ultimately, improved awareness, early diagnosis, and timely surgical intervention are the key determinants of prognosis. Strengthening education and clinical preparedness for obturator hernia can significantly reduce morbidity and mortality associated with this uncommon yet life-threatening condition.

References:

1. Chung CC, Mok CO, Kwong KH, Ng EK, Lau WY, Li AK. Obturator hernia revisited: a review of 12 cases in 7 years. *J R Coll Surg Edinb.* 1997 Apr;42(2):82-4.
2. Li Z, Gu C, Wei M, Yuan X, Wang Z. Diagnosis and treatment of obturator hernia: retrospective analysis of 86 clinical cases at a single institution. *BMC Surg.* 2021 Mar 09;21(1):124.
3. Delgado A, Bhuller SB, Phan P, Weaver J. Rare case of obturator hernia: Surgical anatomy, planning, and considerations. *SAGE Open Med Case Rep.* 2022;10:2050313X221081371.
4. Gilbert JD, Byard RW. Obturator hernia and the elderly. *Forensic Sci Med Pathol.* 2019 Sep;15(3):491-493.
5. Shapiro K, Patel S, Choy C, Chaudry G, Khalil S, Ferzli G. Totally extraperitoneal repair of obturator hernia. *Surg Endosc.* 2004 Jun;18(6):954-6.
6. Wu JM, Lin HF, Chen KH, Tseng LM, Huang SH. Laparoscopic preperitoneal mesh repair of incarcerated obturator hernia and contralateral direct inguinal hernia. *J Laparoendosc Adv Surg Tech A.* 2006 Dec;16(6):616-9.
7. Dhital B, Gul-E-Noor F, Downing KT, Hirsch S, Boutis GS. Pregnancy-Induced Dynamical and Structural Changes of Reproductive Tract Collagen. *Biophys J.* 2016 Jul 12;111(1):57-68.
8. Neureiter J, Goerl T, Tolla-Jensen C, Wiessner R. Laparoscopic Repair of Ureteral Obturator Hernia Using Extended TAPP Technique: A Case Report. *Am J Case Rep.* 2025 Mar 21;26:e948017.
9. Mantoo SK, Mak K, Tan TJ. Obturator hernia: diagnosis and treatment in the modern era. *Singapore Med J.* 2009 Sep;50(9):866-70.
10. Holm MA, Baker JJ, Andresen K, Fonnes S, Rosenberg J. Epidemiology and surgical management of 184 obturator hernias: a nationwide registry-based cohort study. *Hernia.* 2023 Dec;27(6):1451-1459.
11. Chowbey PK, Bandyopadhyay SK, Khullar R, Soni V, Baijal M, Wadhwa A, Sharma A. Endoscopic totally extraperitoneal repair for occult bilateral obturator hernias and multiple groin hernias. *J Laparoendosc Adv Surg Tech A.* 2004 Oct;14(5):313-6
12. Glicklich M, Eliasoph J. Incarcerated obturator hernia: case diagnosed at barium enema fluoroscopy. *Radiology.* 1989 Jul;172(1):51-2.
13. Anderson T, Bessoff KE, Spain D, Choi J. Contemporary management of obturator hernia. *Trauma Surg Acute Care Open.* 2022;7(1):e001011.
14. Ghimire SK, Shrestha S, Jha R, Maharjan S, Shrestha M. Small bowel obstruction secondary to strangulated obturator hernia with transected ileal segment: A case report. *Int J Surg Case Rep.* 2025 Apr;129:111098.
15. Losanoff JE, Richman BW, Jones JW. Obturator hernia. *J Am Coll Surg.* 2002 May;194(5):657-63.
16. Bergstein JM, Condon RE. Obturator hernia: current diagnosis and treatment. *Surgery.* 1996 Feb;119(2):133-6.
17. Major CK, Aziz M, Collins J. Obturator hernia: a case report. *J Med Case Rep.* 2021 Jun 17;15(1):319.
18. Naude G, Bongard F. Obturator hernia is an unsuspected diagnosis. *Am J Surg.* 1997 Jul;174(1):72-5.
19. Expert Panel on Gastrointestinal Imaging. Garcia EM, Pietryga JA, Kim DH, Fowler KJ, Chang KJ, Kambadakone AR, Korngold EK, Liu PS, Marin D, Moreno CC, Panait L, Santillan CS, Weinstein S, Wright CL, Zrelloff J, Carucci LR. ACR Appropriateness Criteria® Hernia. *J Am Coll Radiol.* 2022 Nov;19(11S):S329-S340.
20. Ijiri R, Kanamaru H, Yokoyama H, Shirakawa M, Hashimoto H, Yoshino G. Obturator hernia: the usefulness of computed tomography in diagnosis. *Surgery.* 1996 Feb;119(2):137-40.
21. Siddiqui Z, Khalil M, Khalil A, Saeed S. Obturator hernia: a delayed diagnosis. A case report with literature review. *J Surg Case Rep.* 2021 Jan;2021(1):rjaa599.
22. Ng DC, Tung KL, Tang CN, Li MK. Fifteen-year experience in managing obturator hernia: from open to laparoscopic approach. *Hernia.* 2014 Jun;18(3):381-6.
23. Liu J, Zhu Y, Shen Y, Liu S, Wang M, Zhao X, Nie Y, Chen J. The feasibility of laparoscopic management of incarcerated obturator hernia. *Surg Endosc.* 2017 Feb;31(2):656-660.
24. Petrie A, Tubbs RS, Matusz P, Shaffer K, Loukas M. Obturator hernia: anatomy, embryology, diagnosis, and treatment. *Clin Anat.* 2011 Jul;24(5):562-9.
25. Haith LR, Simeone MR, Reilly KJ, Patton ML, Moss BE, Shotwell BA. Obturator hernia: laparoscopic diagnosis and repair. *JLS.* 1998 Apr-Jun;2(2):191-3.
26. Amiki M, Goto M, Tomizawa Y, Sugiyama A, Sakon R, Inoue T, Ito S, Oneyama M, Shimojima R, Hara Y, Narita K, Tachimori Y, Sekikawa K.

- Laparoscopic transabdominal preperitoneal hernioplasty for recurrent obturator hernia: A case report. *Asian J Endosc Surg.* 2020 Jul;13(3):457-460.
27. Nakayama T, Kobayashi S, Shiraishi K, Nishiumi T, Mori S, Isobe K, Furuta Y. Diagnosis and treatment of obturator hernia. *Keio J Med.* 2002 Sep;51(3):129-32.
 28. Gokon Y, Ohki Y, Ogino T, Hatoyama K, Oikawa T, Shimizu K, Katsura K, Abe T, Sato K. Manual reduction for incarcerated obturator hernia. *Sci Rep.* 2023 Apr 04;13(1):5504.
 29. Arbman G. Strangulated obturator hernia. A simple method for closure. *Acta Chir Scand.* 1984;150(4):337-9.
 30. Yokoyama Y, Yamaguchi A, Isogai M, Hori A, Kaneoka Y. Thirty-six cases of obturator hernia: does computed tomography contribute to postoperative outcome? *World J Surg.* 1999 Feb;23(2):214-6; discussion 217.
 31. Lo CY, Lorentz TG, Lau PW. Obturator hernia presenting as small bowel obstruction. *Am J Surg.* 1994 Apr;167(4):396-8.
 32. Yip AW, AhChong AK, Lam KH. Obturator hernia: a continuing diagnostic challenge. *Surgery.* 1993 Mar;113(3):266-9.
 33. Nakamura A, Harada Y, Oyama H, Tadamura K, Moro H, Kigawa G, Umemoto T, Matsuo K, Tanaka K. Indications for treatment of incidental obturator hernia encountered during transabdominal preperitoneal repair (TAPP). *Hernia.* 2024 Dec 02;29(1):37.