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VISION

The International Pelvic Pain Society

*Professionals engaged in pain management for women.*

# Obturator Hernia as a Cause of Chronic Pelvic Pain in Women

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Obturator hernias are anterior pelvic floor hernias in which preperitoneal fat or bowel protrude through the obturator canal, adjacent to the obturator vessels and nerve. They are acquired lesions that are thought to result from progressive laxity of the pelvic floor which may be associated with multiparity, increasing age, chronically elevated intra-abdominal pressure, aging, and loss of body weight. Women are affected six times more frequently than men. The female pelvis is wider and the obturator canal opening is more triangular with a greater transverse diameter, perhaps providing less resistance to herniation. While the obturator hernia was first described in 1724 by Arnaud De Ronsil of France, very few articles have been reported in the literature citing obturator hernias as a cause of chronic pelvic pain in women.

## Anatomy

The obturator foramen is the largest foramen in the body and is formed by the rami of the ischium and pubis. The canal is a tunnel 2 cm to 3 cm in length that begins as a defect in the obturator membrane and passes obliquely downward to end outside of the pelvis in the obturator region of the thigh. The canal is bordered superiorly and laterally by the pubic bone and inferiorly by the obturator membrane and the internal and external obturator vessels. The obturator nerve, artery, and vein pass through the canal. In most cases the obturator nerve arises from the lumbar plexus at L3-L4. It is located within the substance of the psoas muscle, and at the area of the pelvic inlet, it emerges from the medial border of the psoas muscle just behind the iliac vessels, where it travels with the obturator vessels. The nerve usually enters the canal superior to the artery and vein. The origin of the obturator artery usually arises from the hypogastric artery.

An obturator hernia consists of a peritoneal sac and may contain small intestines, colon, appendix, or omentum. Obturator hernias can be classified into three stages. The first stage begins with a "pilot tag" of retroperitoneal fat. This is followed by the second stage in which dimpling of the peritoneum over the canal leads to formation of an empty peritoneal sac. The final stage is partial or complete herniation of an organ that fails to reduce spontaneously. Pilot tags of preperitoneal fat have been found in the obturator foramen in up to 64% of female cadaver dissections. It is not known what percentage of these female cadavers suffered from chronic pelvic pain. The rarity of stage III obturator hernias suggests that most do not progress beyond the first and second stages.

## History & Physical

It is important to remember that the obturator nerve has sensory and motor fibers. Approximately 50% of all patients will complain of pain along the distribution of the obturator nerve, which is known as the Howship-Romberg sign. Patients will complain of pain down the anterior inner surface of the thigh, in the knee joint, and possibly the hip (see Figure 1). In the elderly, it may be mistaken for arthritic pain. The loss of the motor component may lead to weakness and wasting of the adductor muscles of the thigh. In patients with stage III hernias, the symptoms will usually be consistent with those of intestinal obstruction. Patients rarely complain of a lump in the groin.

It is best to examine the patient with the hip flexed,

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# The President's Perspective

*Deborah Metzger, M.D., Ph.D. • President*

It has been an honor to serve as President of the International Pelvic Pain Society during the past year. Since the inception of the IPPS in 1997, when a group of pioneering health care providers began sharing their individual approaches to chronic pelvic pain, we have developed into a heterogeneous group of health care providers sharing the same goals:

- To serve as an educational resource for health care professionals.
- To optimize diagnosis and treatment of patients suffering from chronic pelvic pain.
- To collate research in chronic pelvic pain.
- To inform women, to serve as a resource of education for treatment options and professional health care Members.

Progress on the first 3 goals has been steadily gaining momentum under the direction of Dr. Paul Perry and Linda Harman, whose unwavering commitment to the IPPS has been the guiding light for the organization.

Progress on the fourth goal has been slow. Yes, we have a well-developed web site (www.pelvicpain.org) with patient information and membership lists. Yes, we have opened membership to patients. Yes, we have given interviews and information to the press. But we still have far to go. Oprah has turned down multiple requests to spotlight pelvic pain on her show because "it is such a depressing topic". Women often have a difficult time getting referrals outside of their healthplan's network to get comprehensive treatment for chronic pelvic pain. Women with chronic pelvic pain have a disability that makes it difficult for them to organize and advocate for themselves.

There are indications that the situation for these women is changing. I recently spoke with Lone Hummelshoj of Denmark who was able to single handedly convince the government of Denmark to mandate that women diagnosed with endometriosis be referred to secondary or tertiary referral centers for comprehensive treatment. In New Zealand, legislation was passed requiring that women diagnosed with endometriosis be given specific information about the disease.

While similar types of legislation would be virtually impossible in the United States, education of Managed Care Organizations regarding treatment advances in chronic pelvic pain, the benefits of an integrated approach, and the availability of experienced centers around the country would go a long way in providing women with the hope of access to appropriate care.

Sincerely,

Deborah Metzger, M.D., Ph.D.
President, International Pelvic Pain Society

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***10th Scientific Meeting*** • March, 2003 • Chicago, Illinois

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*...continued from page 1*

adducted, and externally rotated. The obturator canal is then palpated laterally on vaginal examination. There may be a slight bulge with or without tenderness. Pain should be exacerbated by extension, adduction, and internal rotation of the thigh (compresses the nerve against the hernia) and relieved by thigh flexion. The motor function can be tested by the adductor reflex in the thigh. It is elicited by placing the index finger across the adductor muscles 5 cm above the knee, and percussing onto the extended finger with a patella hammer: the contraction of the muscle will be seen and/or felt. The reflex is absent in strangulated obturator hernias.

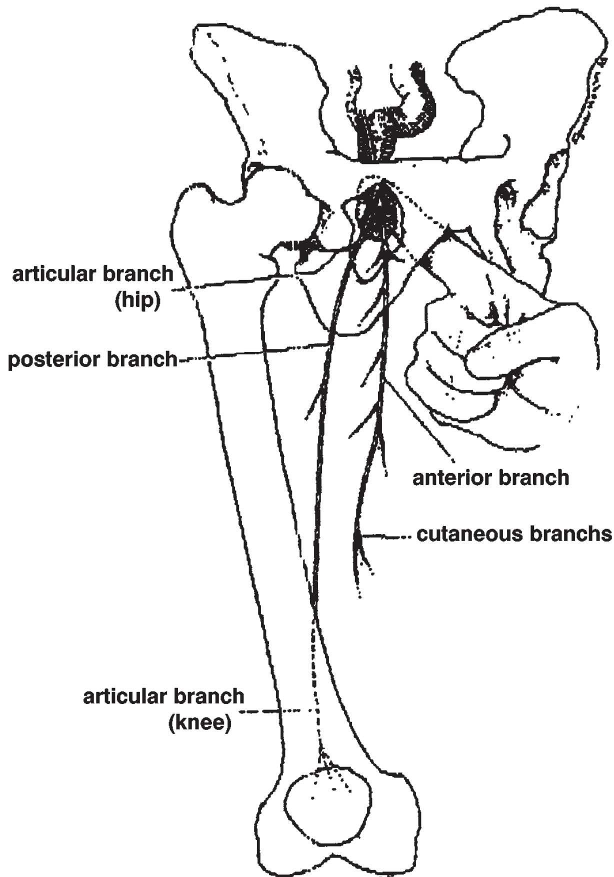


**Figure 1** Compression of either or both divisions of the obturator nerve by the hernia may produce pain (HowshipRomberg sign). Palpation by vagina or rectum my confirm the presence of a hernia.

## Differential Diagnosis

The differential diagnosis should include inguinal adenitis, psoas abscess, obturator neuritis, diseases of the hip joint, perineal hernias, femoral hernias, and other causes of intestinal obstruction. CT scan of the abdomen/pelvis and ultrasound may be helpful in patients with stage III hernias. Diagnostic studies are of little benefit in patients with stage I and II hernias and the diagnosis is usually made on clinical suspicion.

## Treatment

Treatment usually requires surgery. Techniques described in the literature include the abdominal, femoral, and inguinal routes. The vast majority of surgeries are performed due to intestinal obstruction. The complete description of surgical techniques is beyond the scope of this article. Currently, there is an investigation following seven women treated laparoscopically from Feb 2001 to Nov. 2001 for stage I and II obturator hernias.

## Conclusion

While the incidence of stage III hernias is rare (0.05-0.07%), many women have stage I and II hernias that will not progress to stage III. In women experiencing obturator neuralgia, stage I and II obturator hernias should be considered in the clinician's differential diagnosis.

**REFERENCES**

1. Carter, J. Hernias. In Pelvic Pain: Diagnosis and Treatment. Edited by: Howard FM, Perry CP, Carter JE, El- Minawi A, Philadelphia, Lippincott Williams & Wilkins, 2000, pp389-92.

2. Linwood, H: Obturator Hernia: Laparoscopic Diagnosis and Repair. JSLS (1998)2: 191-93

3. Schmidt, PH: Typical vs Atypical Presentation of Obturator Hernia. The Am. Surgeon. Vol 67:191-95, 2001.

4. Skandalakis, L: Obturator Hernia: Embryology, Anatomy, and Surgical Applications. Surgical Clinics of North America. Vol 80: 71-84.

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