



Surgical Repair of Anal Sphincter Injuries in Pregnant Women: Indications, Timing, Techniques and Outcomes

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INTRODUCTION

The anal sphincter is a complex muscle that surrounds the anus and plays a critical role in bowel control. Injuries to the anal sphincter can occur during childbirth, particularly in women who undergo vaginal delivery. These injuries, known as obstetric anal sphincter injuries (OASIs), can cause significant pain, discomfort, and fecal incontinence, and may require surgical repair. In this paper, we will discuss the causes, risk factors, symptoms, diagnosis, and treatment options for anal sphincter injuries in pregnant women.

DESCRIPTION

Causes of anal sphincter injuries in pregnant women

During vaginal delivery, the baby's head may stretch the vaginal tissues and put pressure on the anal sphincter muscles. If the pressure is too great, the muscles may tear, resulting in an anal sphincter injury. The severity of the injury can vary depending on the extent of the tear and the involvement of other surrounding tissues. Some factors increase the risk of developing anal sphincter injuries during vaginal delivery, including:

Large baby size: Women who give birth to larger babies may have a higher risk of developing anal sphincter injuries due to the increased pressure on the muscles during delivery.

Prolonged second stage of labor: Women who have a longer second stage of labor (the stage when the baby is pushed out of the birth canal) may have a higher risk of developing anal sphincter injuries.

Forceps or vacuum-assisted delivery: Women who undergo assisted delivery with forceps or a vacuum may have a higher risk of developing anal sphincter injuries due to the additional

pressure exerted on the muscles.

Previous anal sphincter injury: Women who have had a previous anal sphincter injury during childbirth may be at a higher risk of developing another injury in subsequent deliveries.

Symptoms of anal sphincter injuries in pregnant women

The symptoms of anal sphincter injuries can vary depending on the severity of the injury. Mild injuries may cause only minor discomfort, while more severe injuries can cause significant pain, discomfort, and fecal incontinence. Some of the common symptoms of anal sphincter injuries in pregnant women include:

- Pain during bowel movements
- Inability to control bowel movements
- Leakage of stool or gas
- Discomfort in the anal area
- Pain during sexual intercourse

Anal sphincter injuries are usually diagnosed during a physical examination by a healthcare provider. The examination may involve visual inspection of the anal area, as well as a digital rectal examination to assess the integrity of the anal sphincter muscles. In some cases, imaging tests, such as an ultrasound or magnetic resonance imaging (MRI), may be used to assess the extent of the injury.

Treatment

The treatment options for anal sphincter injuries in pregnant women depend on the severity of the injury. Mild injuries may not require any treatment, while more severe injuries may

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require surgical repair. Some of the common treatment options for anal sphincter injuries include:

Conservative management: Mild injuries may be managed conservatively with stool softeners, high-fiber diets, and pelvic floor exercises to improve muscle tone.

Surgical repair: Moderate to severe injuries may require surgical repair, which involves stitching the torn muscle fibers back together. The surgery is usually performed within a few days of delivery to ensure optimal healing.

Fecal incontinence management: Women who experience fecal incontinence as a result of anal sphincter injuries may benefit from bowel retraining, pelvic floor.

The anal sphincter is a crucial component of the anorectal complex that controls the evacuation of stool from the rectum. Anal sphincter injury is a common complication of vaginal delivery, especially in primiparous women with prolonged second stage of labor, instrumental delivery, and perineal tears. These injuries can lead to fecal incontinence, anal pain, and sexual dysfunction. Surgical repair of anal sphincter injuries can improve symptoms and quality of life. However, surgical repair during pregnancy poses unique challenges due to the physiological changes in the pelvic floor and the potential risks to the fetus. This article will review the indications, timing, techniques, and outcomes of surgical repair of anal sphincter injuries in pregnant women.

Indications for surgical repair

The decision to perform surgical repair of anal sphincter injuries during pregnancy should be based on the severity of symptoms, the extent and location of the injury, the timing of delivery, and the risks and benefits of the procedure. Patients with fecal incontinence or impaired anal sphincter function that affects their daily activities and quality of life may benefit from surgical repair. Women with perineal pain that persists after delivery despite conservative measures such as sitz baths and analgesics may have an underlying anal sphincter injury that requires surgical repair. Women with anal sphincter injuries that are likely to affect future vaginal deliveries should consider surgical repair before the next pregnancy to prevent further damage and improve outcomes. The timing of surgical repair of anal sphincter injuries in pregnant women is controversial and depends on several factors, including the severity of symptoms, the gestational age, the availability of resources, and the expertise of the surgeon. The optimal timing of surgical repair should balance the potential benefits of early intervention with the risks to the fetus and the mother [1-6].

Early repair during pregnancy (before 24 weeks) has been suggested to reduce the risk of preterm delivery and improve outcomes. However, this approach may be challenging due to the limited availability of resources and the risks associated with anesthesia and surgery in the first trimester. Late repair during

pregnancy (after 36 weeks) may be associated with a higher risk of preterm delivery and fetal complications. Therefore, the optimal timing of surgical repair may be during the second trimester (between 16 and 24 weeks), when the risk of preterm delivery is low, and the fetus is less susceptible to the effects of anesthesia and surgery. Surgical repair of anal sphincter injuries during pregnancy can be performed via transvaginal or transanal approaches. The choice of approach depends on the location and extent of the injury, the surgeon's experience, and the patient's preference.

CONCLUSION

This approach involves accessing the anal sphincter through a vaginal incision and identifying the edges of the injury. The edges are then reapproximated using absorbable sutures in a layered fashion. The technique is effective for low and mid-level sphincter injuries and has been shown to improve anal function and reduce symptoms of incontinence. However, the transvaginal approach may be challenging in patients with high-level injuries or scarring from previous deliveries. A small incision in the anus and identifying the edges of the injury using a specialized anoscope. The edges are then approximated using absorbable sutures in a layered fashion. The technique is effective for low and mid-level sphincter injuries and has the advantage of being less invasive and associated with shorter hospital stay and recovery time compared to the Trans.

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CONFLICT OF INTEREST

The author has no conflicts of interest to declare.

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