

## POEM Procedure for Achalasia and the Nurses Role

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**Achalasia:** Achalasia is a medical condition that affects the oesophagus, the tube that carries food from the mouth to the stomach. It is a rare disorder characterized by the inability of the lower oesophageal sphincter (LES) to relax and allow food to pass into the stomach. This lack of relaxation is caused by the degeneration of the nerves in the oesophageal muscles. The exact cause of achalasia is unknown, although it is thought to be related to an autoimmune response that damages the nerves controlling the lower oesophageal sphincter. (LES). In rare cases, achalasia may be associated with certain autoimmune disorders or infections

### SIGNS AND SYMPTOMS

1. **Dysphagia:** Difficulty swallowing, particularly with solids and sometimes liquids.
2. **Regurgitation:** The backflow of undigested food or liquids from the oesophagus into the mouth.

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3. **Chest pain:** Often a squeezing or burning sensation in the chest, which can be mistaken for heart-related pain.
4. **Weight loss:** Due to the difficulty of swallowing and reduced food intake.
5. **Heartburn:** Some individuals may experience acid reflux or heartburn symptoms.

**Diagnosis:** involves a combination of medical history evaluation, physical examination, and various tests, including barium swallow X-ray, oesophageal manometry, and sometimes an endoscopy

**Treatment options for achalasia include:**

1. **Medications:** Certain medications can be prescribed to help relax the LES and improve swallowing, although they are generally not as effective as other treatments.
2. **Balloon dilation (pneumatic dilation):** This procedure involves inflating a balloon within the LES to stretch and widen the passage for food.
3. **Heller myotomy:** It is a surgical procedure in which the muscles of the LES are cut to relieve the obstruction and allow food to pass more easily.
4. **Peroral endoscopic myotomy (POEM):** A minimally invasive procedure that uses an endoscope to access the oesophagus and create a small incision in the LES to relieve the blockage.

5. **Botox injection:** In some cases, botulinum toxin (Botox) can be injected into the LES to temporarily paralyze the muscles and allow food to pass through. This treatment is generally less effective and temporary compared to other options.

The choice of treatment depends on various factors, such as the severity of symptoms, the individual's overall health, and the expertise of the treating physician. It is recommended to consult with a gastroenterologist or a specialized healthcare professional for an accurate diagnosis and personalized treatment plan.

#### *POEM - Peroral endoscopic myotomy*

- » Peroral endoscopic myotomy (POEM) is a minimally invasive surgical procedure used to treat achalasia, a condition characterized by the inability of the lower esophageal sphincter (LES) to relax properly, causing difficulty in swallowing.
- » During a POEM procedure, an endoscope is inserted through the mouth and into the esophagus. A tunnel is created within the layers of the esophageal wall, extending into the upper portion of the stomach. Once the tunnel is formed, the muscle fibers of the LES are divided, allowing for easier passage of food and liquids.
- » Since POEM is a surgical procedure performed internally, there are no external visible signs of the procedure itself.

#### *General description of the steps involved in POEM:*

1. The patient is usually under general anesthesia for the procedure.
2. The endoscope, a flexible tube with a light and camera on its tip, is inserted through the mouth and advanced into the esophagus.
3. The endoscope creates a tunnel by separating the layers of the esophageal wall, starting from the inside of the esophagus and extending into the upper part of the stomach.
4. The muscles of the LES are then divided, which helps to relieve the pressure and allow food and liquids to pass more easily.
5. After the procedure is completed, the endoscope is removed.
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10. After the procedure is completed, the endoscope is removed.

#### *Potential Complications of POEM:*

POEM is generally a safe procedure. Rare complications include bleeding and a puncture (or perforation) in the lining of the esophagus.

#### *Patient education before POEM:*

limit diet to full liquids 3 days before the procedure, and then clear liquids 1 day (24 hours) before the procedure

Antibiotic to take before the POEM procedure as per doctors advice

#### *Nurses role in POEM Procedure:*

##### *Pre-operative Care:*

- » Educate the patient about the procedure, including the risks, benefits, and expected outcomes.
- » Review the patient's medical history and ensure that all necessary preoperative tests and assessments have been completed.
- » Administer prescribed medications, such as proton pump inhibitors or antibiotics, as ordered by the healthcare provider.
- » Ensure the patient follows the necessary fasting guidelines prior to the procedure.

##### *Intra-operative Care:*

- » Assist the healthcare team in positioning the patient comfortably for the procedure, which is usually done under general anesthesia.
- » Monitor the patient's vital signs and provide any required additional support during the procedure.
- » Collaborate with the healthcare team to ensure aseptic technique and proper handling of instruments.

**Post-operative Care:**

- » Monitor the patient closely in the recovery area, assessing vital signs, airway patency, and oxygenation.
- » Administer medications as prescribed, such as analgesics to manage pain or antiemetics to prevent nausea and vomiting.
- » Provide frequent oral care and assess the patient's ability to swallow and tolerate oral intake.
- » Assess the patient for signs of complications, such as bleeding, infection, or perforation, and report any concerns to the healthcare provider.
- » Instruct the patient on postoperative care instructions, including dietary modifications, medication schedule, and follow-up appointments
- » Offer emotional support to the patient and

- address any concerns or anxieties they may have regarding the procedure and recovery.
- » Provide comprehensive education to the patient and their family members about the procedure, expected outcomes, and self-care measures.
- » Emphasize the importance of adhering to prescribed dietary modifications and medications to ensure optimal healing and symptom relief.

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