# Hernia Heptathlon

**H. Liefeld, G.D. Fritz, L. Sanford, G. Zambito, L. Silverman**
Michigan State University/Corewell Health Department of General Surgery

## Introduction

- Obturator and femoral hernias are rare, with a prevalence of 1-4% and less than 1%, respectively
  - Both are typically found in elderly patients, more commonly in women
- Anterior (Morgagni) diaphragmatic hernias are particularly rare, constituting 1-3% of all congenital diaphragmatic hernias
  - Morgagni hernias may go undiagnosed until adulthood if asymptomatic
- Spigelian hernias constitute less than 2% of all abdominal wall hernias and are difficult to identify on exam
- Unlike inguinal hernias, which require repair once symptomatic, operative repair of femoral, obturator, Spigelian and diaphragmatic hernias are recommended when identified

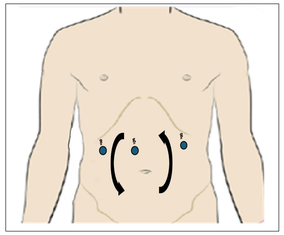
## Presentation

- 72-year-old female, active smoker presented with chronic bilateral lower abdominal pain and a left groin bulge, no obstructive symptoms
- Patient had no previous hernia repairs
- Reducible right inguinal hernia, and laxity along the left lower abdominal wall on exam



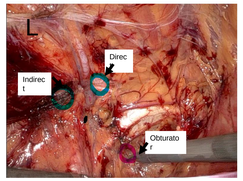


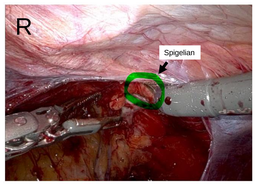
## Inguinal Repair

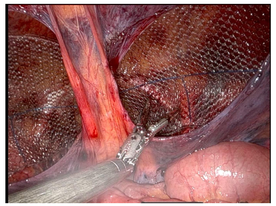


- Abdomen entered with visualizing trocar at Palmer's point
- Three 8mm robotic trocars used
- Pelvic portion completed first
- **SIX** hernia defects identified

- On the LEFT: Pantaloon hernia (direct and indirect defects), and incarcerated obturator hernia
- On the RIGHT: incarcerated obturator, femoral, and Spigelian hernias were identified
  - Defects contained reducible preperitoneal fat
- Spigelian defect closed with barbed suture and preperitoneal permanent mesh placed bilaterally



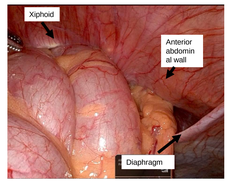



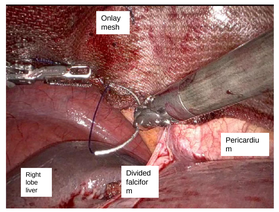



- Robot then rotated 180° for repair of the diaphragmatic hernia

## Diaphragm Repair

- Omentum and transverse colon reduced
- Diaphragm reapproximated to anterior abdominal wall with interrupted horizontal mattress permanent suture
- Repair reinforced with onlay permanent coated mesh




## Post-Operative Course

- Admitted to observation overnight for pain control
- Seen at 2-week follow up with no ongoing issues and resolution of her lower abdominal pain

## Discussion

- The presence of inguinal, obturator, femoral, Spigelian, and diaphragmatic hernias repaired in the same patient has not been reported in the literature
- Here we reported a unique case in which seven separate hernias are repaired concurrently via robotic approach
- There are several uncommon hernia defects, which can be difficult to identify clinically, that require repair once identified
- The concurrent presence of pelvic, abdominal wall and/or diaphragmatic hernias could prove difficult to repair in a single open or laparoscopic case
- The Xi robotic surgical system proved advantageous allowing work deep within the pelvis to high on the diaphragm without moving ports, patient, or the robot