

## CASE REPORT

# Incarcerated Bowel Hernia through a 5 mm Lateral Trocar Site Following Laparoscopic Surgery: A Case Report

Anke H C Gielen<sup>1\*</sup>, Jeroen Heemskerk<sup>2</sup>

<sup>1</sup>Medical Student Maastricht University, The Netherlands

<sup>2</sup>Surgeon, Laurentius Ziekenhuis Roermond, The Netherlands

**Keywords:** Incarcerated hernia, Trocar site, Laparoscopy, Incisional hernia, Alzheimer's disease

### Case Report

A 94-year-old female patient with a medical history of hypertension and Alzheimer's disease was treated in our hospital for a 25 centimeter full thickness rectal prolapse. She underwent a laparoscopic ventral mesh rectopexy as described by d'Hoore et al [1]. Surgery and initial recovery were uneventful. She was discharged to the nursing home on the first postoperative day in a good clinical condition.

On the fourth postoperative day she was readmitted because of severe pain in the lower abdomen, nausea and vomiting. Furthermore, she had not passed stool in the last two days. At physical examination the entire abdomen was tender. A painful, solid mass was palpable in the right lower quadrant. Laboratory findings showed indications for dehydration.

An abdominal CT scan showed bowel herniation on the site of the lateral 5 mm trocar in the right lower quadrant of the abdomen (Figure 1). The small intestine was dilated. Relaparoscopy was performed, showing an incarcerated and

ischaemic segment of the small intestine. The segment showed dark discoloration and proved to be very fragile upon surgical manipulation. A segment of 10 cm was resected and a side to side anastomosis of the small intestine was performed. The fascia was primarily closed using a prolene 4.0 suture. Again, no complications occurred during the procedure.

On the second postoperative day the patient developed an obstructive ileus. A new abdominal CT scan revealed a stricture of the anastomosis, possibly due to local oedema. Conservative treatment aiming for gastrointestinal decompression was started. This entailed the placement of a nasogastric tube and administration of laxatives for over 24 hours. Her clinical condition did not improve during this course of treatment. Respecting the family's wishes we decided not to perform reexploration, and treated her discomfort with adequate pain medication. She deceased in the comfort of her own home several days later.

Incarcerated incisional hernias are infrequently reported as a complication of laparoscopic surgery. Furthermore, trocar site hernias have mostly been reported at incision  $\geq 10$  mm. Trocar site hernias at 5 mm incision sites are rare, specifically in non-obese patients [2, 3]. This particular case however, illustrates the fact that these hernias can develop and can lead to very serious and potential lethal complications. The need for primary closure of 5 mm incisions is still up for debate. However, the currently available literature supports non closure of  $\leq 5$  mm incisions [2, 4]. Further research would be necessary to evaluate the possible benefits of routine closure of 5 mm trocar sites after laparoscopic surgery in order to prevent possible herniation.



**Figure 1:** Abdominal CT showing bowel herniation on the site of the lateral trocar in the right lower quadrant

\*Correspondence to: Anke H C Gielen, Medical Student Maastricht University, The Netherlands, Tel: +31 652592125, Email: anke[DOT]gielen[AT]mumc[DOT]nl

Received: March 27, 2020; Accepted: April 01, 2020; Published: April 04, 2020

\*This article is reviewed by "Emmanouil Magiorkinis, Greece"

## Acknowledgement

None

## Conflicts of interest

None

## References

1. D'Hoore A, Cadoni R, Penninckx F (2004) Long-term outcome of laparoscopic ventral rectopexy for total rectal prolapse. *Br J Surg* 91: 1500-1505. [[View Article](#)]
2. Pereira N, Hutchinson AP, Irani M, Chung ER, Lekovich JP, et al. (2016) 5-millimeter trocar-site hernias after laparoscopy requiring surgical repair. *J Minim Invasive Gynecol* 23: 505-511. [[View Article](#)]
3. Khurshid N, Chung M, Horrigan T, Manahan K, Geisler JP (2012) 5-millimeter trocar-site bowel herniation following laparoscopic surgery. *JSLS* 16: 306-310. [[View Article](#)]
4. Swank HA, Mulder IM, La Chapelle CF, Reitsma JB, Lange JF, et al. (2012) Systematic review of trocar-site hernia. *Br J Surg* 99: 315-323. [[View Article](#)]

**Citation:** Gielen AHC, Heemskerk J (2020) Incarcerated Bowel Hernia through a 5 mm Lateral Trocar Site Following Laparoscopic Surgery: A Case Report. *Gut Gastroenterol* 3: 001-002.

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