

CSF/CHS Hernia Case Competition Submission 2026

1. Case Summary (Max: 500 words)

a. Title, presenter(s), staff sponsor, university affiliation:

Title: Multidisciplinary Optimisation and A Novel Method for Intraoperative Controlled Traction for Multirecurrent Ventral Incisional Hernia

Presenter: Dr. Zach Sagorin (PGY-4)

Staff Sponsor: Dr. Rachel Liu Hennessey, Dr. Chieh Jack Chiu

University Affiliation: University of British Columbia

b. Case presentation (H&P, relevant investigations, and imaging)

Patient quote: "the last 20 years of my life was basically dealing with this hernia"

65-year-old male with a large multi-recurrent ventral incisional hernia. Underwent 3 prior ventral hernia repairs, including 2 open mesh repairs in 2000, 2008, followed by a laparoscopic intraperitoneal onlay mesh repair in 2008 that was complicated by enterotomy and small bowel resection. His ventral hernia recurred in 2023. Preoperative optimization was conducted. Preoperative physical examination in 2026 revealed a 40x40 cm ventral hernia with bulk to the right side.

CT August 2025: Recurrent large central incisional hernia containing most of the small bowel. Hernia defect 16.4 x 9.4 cm. Hernia sac 30.0 x 7.4 x 18.8 cm.

February 2026: Ultrasound-guided botulinum toxin injection into the bilateral lateral abdominal wall oblique muscles.

CT March 2026: Decreased size of a large ventral hernia. Hernia neck width decreased by 2 cm, and increased muscle laxity. CT scan images will be reviewed.

c. Pre-operative interventions (if applicable)

January 2025 the patient underwent a laparoscopic sleeve gastrectomy for morbid obesity. The patient's BMI decreased from 49 to 28.7 and achieved resolution of type 2 diabetes.

February 2026: Fascial botulinum toxin injection by interventional radiology.

d. Operative interventions

Open incisional ventral hernia repair via midline incision. Previous scar excised. Adhesiolysis x 240 minutes. Excision of prior PTFE and Symbotex mesh. Component separation with bilateral transversus abdominus release on the lower abdomen. Progressive fascial traction performed using multiple U #1 polydioxanone fascial sutures immobilised to the Thompson retractor. Closure of posterior sheath with 2-0 V-lock suture. Retromuscular sublay mesh placement with heavy-weight polypropylene mesh 28 x 28 cm diamond configuration to achieve 40 cm midline overlap. A 10mm surgical drain was placed in the retromuscular space. Fascia closed with

interrupted #1 PDS figure-of-8 suture. Subcutaneous tissue closure and subcuticular skin closure.

e. Post-operative course

Uncomplicated postoperative course. Pain was controlled with an epidural. Diet advanced. Mobilised with physiotherapy. Foley catheter removed on postoperative day 2. Epidural catheter and surgical drain removed on postoperative day 3. Discharged home on postoperative day 4 in stable condition, tolerating diet, mobilising at baseline, and with return of bowel function.

f. Outcomes

At the time of the 6-week follow-up, there was no hernia recurrence.

2. Discussion points (Max: 100 words)

1) Multidisciplinary obesity optimisation with bariatric surgery. This patient underwent a preoperative laparoscopic sleeve gastrectomy with excellent results, decreasing BMI from 49 to 28.7 and resulting in remission of his type 2 diabetes. Laparoscopy confirmed the extent of adhesions, defect size, and prior mesh placements.

2) Fascial botulinum toxin injection for loss of domain. Comparison of pre- and post-botulinum toxin cross-sectional imaging to demonstrate the difference in size of the ventral hernia following ultrasound-guided injection into the abdominal wall oblique muscles.

3) Description and images of a low-cost progressive fascial traction method using fascial sutures immobilised to the Thomson retractor.

3. Why your case should be selected (Max: 100 words)

This case demonstrates the importance of a multidisciplinary approach to complex multirecurrent ventral incisional hernias and describes a novel technique for intraoperative fascial traction. This case advocates for engaging metabolic and bariatric surgeons and bariatric multidisciplinary teams for the preoperative optimisation of morbidly obese patients with complex abdominal wall hernias. This case also describes the utility of fascial botulinum toxin injection for patients with loss of domain and reviews cross-sectional imaging from before and after the injection. The case will display images and discuss the utility of a novel, safe, effective, and inexpensive progressive intraoperative fascial traction device.