



**AbThera™**  
Open Abdomen Therapy

## Use of 3M™ AbThera™ Advance Open Abdomen Dressing for abdominal fascial closure following infarcted small bowel removal and subsequent end-to-end anastomosis

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### Patient

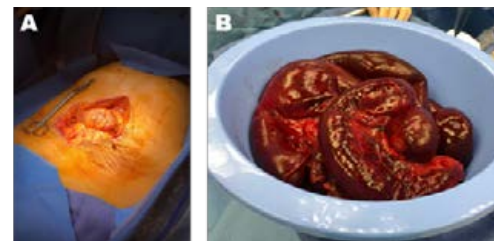
A 24-year-old female presented to the Emergency Department with complaints of abdominal and back pain (6/10 on a pain scale), dizziness and near syncopal episode but no nausea or vomiting. She was noted as afebrile, tachycardic (140 beats per minute [bpm]), and hypotensive (systolic blood pressure in the 60's mmHg). On physical examination, she had left lower quadrant tenderness. A continuous wave, obstetrical Doppler ultrasound revealed an early intrauterine pregnancy (11-week gestation) and a fetal heart rate of 135 bpm. She had leukocytosis (18.9) and a neutrophil count of 84.

### Diagnosis

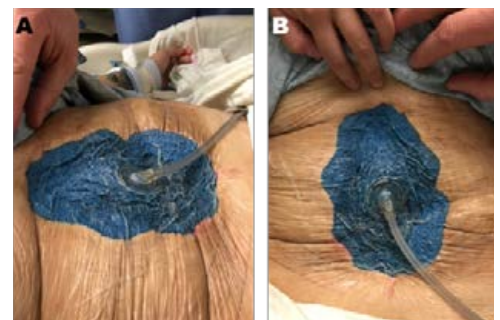
Ringer's lactate solution was administered intravenously for her hypotension, and she remained tachycardic (> 120 bpm). A Focused Assessment with Sonography for Trauma (FAST) detected free fluid in the pelvis and right upper quadrant. The patient was anemic (hemoglobin = 6.8), which raised concern for intraabdominal bleeding of unknown origin and prompted a general surgery consult. An abdominal computed tomography (CT) scan revealed dilated loops of small bowel but diffuse thickness consistent with edema and a fluid-filled abdominopelvic cavity. Given her hemodynamic instability and CT scan, she was taken to the operating room (OR) for diagnostic laparoscopy to explain her clinical decompensation.

### Initial Treatment/Application of AbThera Advance Dressing

The patient underwent diagnostic laparoscopy that was converted to an open exploration after scope insertion revealed bloody ascites and loops of necrotic small bowel (**Figure 1**). An internal hernia defect facilitated volvulization of the small bowel, which required intestinal detorsion and prompted a resection of 300 cm of ischemic small bowel. The bowel was left in discontinuity and AbThera Advance Dressing (San Antonio, TX) was placed within the open



**Figure 1.** Patient underwent diagnostic laparoscopy that was converted to an open exploration. A. Open abdomen procedure to resolve volvulization of small bowel. B. Loops of necrotic dilated small bowel removed from patient.



**Figure 2.** Open abdomen placement of 3M™ AbThera™ Advance Open Abdomen Dressing for temporary abdominal closure following removal of necrotic small bowel. A. AbThera Advance Dressing placement after small bowel resection (patient in supine position) B. AbThera Advance Dressing placement after small bowel resection.

abdomen for temporary closure (**Figure 2**). She was admitted to the surgical intensive care unit for her open abdomen, pain control, metabolic acidosis, hypovolemia and fetal demise. On postoperative day 2, the patient returned to the OR for 3M™ AbThera™ Advance Open Abdomen Dressing removal; abdominal lavage; a stapled, jejunal-colonic, end-to-end anastomosis; appendectomy; placement of a nasogastric tube and fascial closure (**Figure 3**). She was transferred to the floor the following day.

### Discharge and Follow-up

She was discharged on hospital day 7, with good pain control and an ability to tolerate a regular diet, ambulate, and perform twice daily wet-to-moist dressing changes on her abdomen. She was given a follow-up appointment in one-week post discharge (**Figure 4**).

### User Experience

In this case, AbThera Advance Dressing facilitated fascial closure and prevented abdominal retraction.



**Figure 3.** Patient after second open abdomen procedure to perform end-to-end anastomosis, appendectomy, nasogastric tube placement and fascial closure.



**Figure 4.** Patient at 1-week post-discharge appointment.

Patient data and photos courtesy of Marc R. Matthews, MD, MS, FACS, Associate Director, Arizona Burn Center, Director, Burn Emergency Services Director, Respiratory Care Services, Maricopa Medical Center.

As with any case study, the results and outcomes of this patient should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

3M™ AbThera™ Advance Open Abdomen Dressing is designed for use with the negative pressure wound therapy provided by the 3M™ V.A.C.® Ulta Therapy Unit. When using the V.A.C.® Ulta Therapy Unit, do not select the 3M™ Veraflo™ Therapy option. See Instructions for Use.

**Note: Specific indications, contraindications, warnings, precautions and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application. This material is intended for healthcare professionals. Rx only.**

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