

ABTHERA™ OPEN ABDOMEN NEGATIVE PRESSURE THERAPY SYSTEM

CASE STUDY: TEMPORARY CLOSURE FOLLOWING MOTOR VEHICLE ACCIDENT

PATIENT

A 37-year-old male pedestrian was struck by an automobile. At emergency room presentation, systolic blood pressure was 70 mmHg and heart rate was 118 beats per minute.

DIAGNOSIS

The abdominal FAST (Focused Assessment with Sonography for Trauma) was positive and an emergency laparotomy was performed. Findings included massive bleeding from a grade IV liver injury.

INITIAL TREATMENT/APPLICATION OF ABTHERA™ OPEN ABDOMEN NEGATIVE PRESSURE THERAPY (OA NPT)

Midline laparotomy and a right subcostal incision for exposure of the posterior liver were performed. Right lobe liver resection was also performed (A). During the operation, the patient remained hypotensive, the pH was 7.02, and temperature was 34.4°C. Massive transfusion protocol consisted of 22 units of packed red blood cells, 15 units of FFP and 3 units of platelets. Patient developed severe bowel edema (B). Treatment included closure of the right subcostal incision, damage control with perihepatic packing (9 perihepatic packs) and temporary closure of the laparotomy wound with ABThera™ OA NPT (KCI, San Antonio, TX). The ABThera™ Visceral Protective Layer (VPL) was tucked under the peritoneum to completely cover the viscera and protect abdominal contents (C). The ABThera™ Perforated Foam was cut into size and shape and was placed over the protective foam (D). The ABThera™ Drape and tubing were placed over the dressing to create a seal, and the tubing was connected to the negative pressure therapy unit at -125 mmHg (E). The patient received standard ICU care, including mechanical ventilation and fluid resuscitation.

Dressing changes were performed on Days 2, 4, and 7 with definitive closure on Day 9 (F). The post-operative recovery was uneventful.

CLINICAL OUTCOMES

Optimal temporary abdominal wall closure is critical for survival and successful definitive primary fascial closure.

USER EXPERIENCE

In this case, the ABThera™ OA NPT System simplified a complex problem and allowed early definitive abdominal wall closure, thus helping to reduce the risks associated with the open abdomen.



A. Right hepatic vein ligation and right lobe liver resection



B. Damage control surgery for massive bowel edema.



C. Application of Visceral Protective Layer.

ECONOMIC VALUE

Early definitive closure for this patient prevented complications associated with the chronic open abdomen, such as the development of an incisional hernia, and need of a subsequent operation.

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D. The ABThera™ Perforated Foam was measured and cut to fit inside the exposed abdominal cavity.



E. ABThera™ OA NPT was used for 9 days



F. Definitive closure on Day 9.



NOTE: 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.

NOTE: Specific indications, contraindications, warnings, precautions and safety information exist for KCI products and therapies. Please consult a physician and product instructions for use prior to application. Rx only.