

## ABTHERA™ OPEN ABDOMEN NEGATIVE PRESSURE THERAPY SYSTEM

### CASE STUDY: TEMPORARY ABDOMINAL WALL CLOSURE FOLLOWING PENETRATING TRAUMA

#### PATIENT

A 32-year-old male presented with a gunshot wound to the right thoracoabdominal area. Upon admission, patient had severe hypotension with systolic blood pressure of 60 mmHg.

#### DIAGNOSIS

A FAST (Focused Assessment with Sonography for Trauma) exam was positive for intraperitoneal bleeding. Emergency laparotomy revealed a massive hemoperitoneum due to a grade V liver injury that included a right hepatic venous injury.

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

A subcostal incision was added to the midline laparotomy for improved exposure. The right hepatic vein was ligated, and a right lobectomy was performed. An intraoperative liver angio-embolization was also performed, and the patient received a massive transfusion of 28 units of packed red blood cells.

During surgery, patient was hypotensive, hypothermic (34.0°C), acidotic with pH of 6.9, and coagulopathic and developed massive bowel edema. Damage control with perihepatic packing and temporary abdominal wall closure was performed using the ABThera™ OA NPT System (KCI, San Antonio, TX). The ABThera™ fenestrated Visceral Protective Layer (VPL) was tucked inside the abdominal wall to completely cover the viscera and protect abdominal contents. The ABThera™ Perforated Foam was measured and cut to fit inside the exposed abdominal cavity. The ABThera™ Drape and tubing were placed over the dressing to create a seal and were connected to the negative pressure therapy unit set at -125 mmHg. The patient was transferred to the surgical intensive care unit where he was stabilized after 8 hours with blood product transfusions and ventilator support. ABThera™ OA Dressing changes were performed at 36 hours and on postoperative Days 3, 5, and 7. Definitive closure was performed on Day 8 (A). The post-operative course was uneventful.

#### CLINICAL OUTCOMES

Damage control procedures and optimal temporary abdominal wall closure were critical for survival and definitive primary fascial closure.

#### USER EXPERIENCE

In this case, the ABThera™ OA NPT system was critical in the successful early definitive closure of this patient's complex abdomen.



A. Definitive closure was performed on post-operative Day 8.

## ECONOMIC VALUE

In this case, early definitive closure helped to reduce hospital stay and prevent complications associated with the chronic open abdomen, the development of an incisional hernia, and the need for a subsequent operation.

## PROVIDED BY

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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.**