Abdominal wall closure device

Available to license: a dynamic traction wall system for the progressive closure of the open abdomen

IDIVAL has developed an abdominal wall closure device that can be used to prevent Abdominal Compartment Syndrome (ACS) and provide a safe abdominal closure, avoiding hernias and necrosis

Abdominal wall closure device

Primary closure of the abdominal wall is not always recommended. In several occasions like, for example, damage control surgery or abdominal compartment syndrome (ACS), performing a temporary closure becomes a necessity in order to operate with the open abdomen (OA).

Abdominal compartment syndrome is caused by intra-abdominal hypertension (IAH), leading to ischemia and organ dysfunction. When reducing intra-abdominal pressure is not possible performing less invasive techniques, a surgical procedure is required and, for that purpose, there are different methods available for the clinicians.

Here we present a dynamic traction wall system (DTWS) associated to negative pressure wound therapy (NPWT), for the progressive closure of the open abdomen and the correction of complex abdominal defects.

Competitive advantages

The main competitive advantages of the abdominal wall closure device are:

- The apparatus provides easy access to the abdominal cavity, and its tension can be adjusted to intra-abdominal pressure.
- Since the system is not fixed in the aponeurotic edge, it preserves the tissue integrity.
- Due to the fenestrated mesh included in this device, negative-pressure wound therapy effectively acts on deep tissues.

Supporting Data

A prototype has been developed. Currently, clinical validation is necessary.

Market insight

This technology will be of interest to companies involved in the development of abdominal temporary closure devices.

Patent Protection

An utility model covering this technology has been filed through Spanish Utility Model Application U201600872. IDIVAL would like to talk to companies interested in commercializing this device or in a research cooperation agreement to develop it.

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