CASE REPORT

Negative pressure therapy as palliative treatment for a colonic fistula

Manuel Ruiz-Lopez1, Alberto Titos2, Ivan Gonzalez-Poveda1, Joaquin Carrasco1, Jose Antonio Toval3, Santiago Mera4 & Julio Santoyo5

1 Colorectal Unit, Carlos Haya University Hospital, Malaga, Spain
2 Digestive and Transplantation Surgery, Carlos Haya University Hospital, Malaga, Spain
3 Carlos Haya University Hospital, Malaga, Spain
4 Head of Colorectal Unit, European Board on Colorectal Surgery, Carlos Haya University Hospital, Malaga, Spain
5 Director of General, Digestive and Transplantation Surgery, European Board on Transplant Surgery, Carlos Haya University Hospital, Malaga, Spain

Key words
Enterocutaneous fistula; Negative pressure therapy; Palliative care

Correspondence to
M Ruiz-Lopez, MD, PhD, Cno. Pinillo of No. 22, p-16, A-A, Torremolinos 29620, Malaga, Spain
E-mail: manuel.ruiz.lop@gmail.com
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Abstract
Colonic fistulas in an open wound are always a challenge for colorectal surgeons, and this report provides a technique for the appropriate management of these cases. We communicate the use of a negative pressure dressing therapy as part of the palliative care for a patient following the development of an enterocutaneous fistula. The use of this therapy allowed us to keep the patient clean and comfortable during the last few days of his life.

Owing to the increasing widespread use of negative pressure therapy, additional applications of this technique have yielded acceptable outcomes, beyond the approved product indications. Here we present a case where negative pressure therapy was used as palliative treatment.

A 60-year-old man underwent surgery for replacement of a prosthesis placed on an aortic aneurysm. Immediately after surgery, he developed septic shock due to the development of a biliary fistula. During the corrective surgery, the surgeon found a defect in the first jejunal loop, close to the angle of Treitz. The defect was corrected using the duodenal exclusion technique. However, the patient developed sepsis, which then remained refractory to treatment. Early dehiscence of the laparotomy wound occurred with exteriorisation of a stercoral fistula (Figure 1).

Owing to the patient’s general instability and the ongoing requirement for wound dressing changes, the wound was treated with a negative pressure system as a palliative treatment, after receiving the patient’s informed consent. A polyvinyl sponge (white) was placed along the lower wound margin (Figure 2A) to protect the bowel, and an opening was left to allow faecal passage, without soiling the sponge. A polyurethane sponge (black) was placed over the polyvinyl sponge, providing a similar opening that was located slightly higher to maintain negative pressure directly on the white sponge.

The sponges were covered with a one-piece plastic film and an ileostomy bag to minimise pressure loss (Figure 2B). As a result, the wound remained clean, and the collecting system worked successfully for 72 hours, until the patient died.
Colonic fistulas in an open wound are always a challenge for colorectal surgeons

**Key Messages**

- we present a case where negative pressure therapy was used as palliative treatment
- a 60-year-old man underwent surgery for replacement of a prosthesis placed on an aortic aneurysm
- patient developed sepsis, which then remained refractory to treatment
- owing to the patient’s general instability and the ongoing requirement for wound dressing changes, the wound was treated with a negative pressure system as a palliative treatment
- although the use of negative pressure therapy for palliative care has been rarely described in the literature, patients with enterocutaneous fistulas appear to benefit from this therapy
- in such cases, negative pressure therapy provides comfort to the patient, a better perception of patient care to the family and invaluable support to the professionals who deal with such patients
- use of this therapy allowed us to keep the patient clean and comfortable during the last few days of his life

**Discussion**

In recent years, several studies (1,2) have questioned the routine use of negative pressure therapy, because of lack of evidence of its benefits. We believe that the conduct of prospective studies to support the benefits of this therapy is very difficult because of the challenges of standardising wounds and their treatments. Although the use of negative pressure therapy for palliative care has been rarely described in the literature (3,4), patients with enterocutaneous fistulas appear to benefit from this therapy (5). In such cases, negative pressure therapy provides comfort to the patient, a better perception of patient care to the family and invaluable support to the professionals who deal with such patients.

**References**