

Facing the challenges of managing a large abdominal wound in a complex patient—the use of a negative pressure wound system* to promote wound closure and improve a patients quality of life



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Introduction

Control of intra-abdominal fluid secretion, facilitation of abdominal exploration and preservation of the fascia for abdominal wall closure is a major challenge in the management of patients with an open abdomen¹. The open abdomen is associated with significant morbidity and a mortality rate in excess of 25%. In addition, there are considerable socio-economic costs associated with prolonged hospital admission². Therapeutic approaches to the open abdomen are to initially control the wound, to contain abdominal contents and prevent infection, and sub-sequentially promote wound closure without hernia formation. Negative pressure wound therapy (NPWT) has been used successfully as an adjunct therapy in the management of the open abdomen.

The aim of this poster presentation is to further support the use of this therapeutic approach by sharing the results and experiences of the management of a very complex patient with multiple co-morbidities. Also, to illustrate the improvements in patient's quality of life as a result of the wound care management program that was implemented.

Case history

Mr B: history was melena stools for one month. Co-morbidities included; hypertension (HT), diabetes mellitus (DM), status post (sp) coronary artery bypass graft (CABG), coronary artery disease (CAD), vascular disease, liver cirrhosis, sp carotid endarterectomy (CEA), superficial femoral artery (SFA) stents, renal artery stents, pacemaker, gastro esophageal reflux disease (GERD), esophageal varicies, degenerative disc disease, gout, anxiety, sp cholecystectomy. Mr B. was taken urgently to OR on 01.17.08 where an ileocecostomy, perforated appendix, exploratory laparotomy, ileocecal resection was identified, also found extensive small and large bowel pneumatosis, with small amount of free air found. Abdomen was left open at this time with the application of the NPWT system* applied in the operating room (OR). An ileostomy, with mucous fistula and vicryl mesh application to abdominal wound site was carried out on 01.20.08.

Outcome

The successful management of this patients wound is further evidence to support the efficacy of this system, using gauze as a wound filler material and set at a level of sub-atmospheric pressure of -80mmHg, in the management of the open abdomen. Successful wound management has been demonstrated by helping to facilitate wound closure, protection periwound skin, containment of drainage, pain control and cost effectiveness due to decrease dressing change frequency and conservation of nursing time. Quality of life is always difficult to quantify, but there was a dramatic improvement in the quality of life of this patient, as a result of the successful exudate and pain management using the NPWT* system.



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References

- 1 Kaplan, M. (2004). Managing the open abdomen: Acknowledging the risks, utilizing the technology. *Ostomy/Wound Management*, January 2004, Vol. 50, Issue 1A (supplement).
- 2 Barwell, E Paul and Melinda Musgrave. (2004). Topical negative pressure therapy: mechanisms and indications. *International Wound Journal*, Vol. 1, No. 2.

*EZCARE - Smith & Nephew Wound Management Inc., St Petersburg, FL.