THE MANAGEMENT OF THE OPEN ABDOMEN: 11 YEARS EXPERIENCE IN THE TROPICS

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Purpose: The management of the open abdomen (OA) has changed over the last 11 years with Topical Negative Pressure (TNP) systems now the first line of treatment in our institution. We share our experiences with the use of TNP systems in contrast to the previous Planned Ventral Hernia (PVH) approach.

Methodology: 92 consecutive patients with OA were reviewed from operating theatre and intensive care unit (ICU) databases from 2001 to 2011 at the Cairns Base Hospital, Queensland, Australia. Mortality rates were compared in relation to APACHE III scores as well as the incidence of adverse outcomes such as entero-cutaneous fistulas (ECF), anastomotic leaks, and intra-abdominal abscesses within the two management systems. These results were analysed using chi-squared test for categorical variables, with statistical significance being identified as p value less than 0.05.

Results: Peritonitis accounted for 58% of cases of an open abdomen. There was observed increased mortality associated with PVH (16% vs. 29%) when APACHE III scores ranged from 46–126. There was no statistical significance between the two management systems in relation to incidence of ECF rate, anastomotic leaks or intra-abdominal abscesses. Patients with TNP spent less time in ICU (24.3 days vs. 31.6 days).

Conclusions: The TNP systems have replaced the previously used PVH systems in the management of the OA in our institution. Analysis suggests that TNP systems can be safely employed in the management of OA as compared to the PVH approach.