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USE OF TOPICAL NEGATIVE PRESSURE 'TNP' IN THE OPEN ABDOMEN IS SAFE

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Introduction: Recent reports suggested an increase in fistulae with the use of TNP in the open abdomen; our earlier review did not support this. This is a follow up study to ascertain our previous findings on a larger data base.

Methods: This is a 5 year prospective analysis, from January 2004 to December 2008, of 42 patients who developed an open abdomen requiring TNP.

Results: There were 22 males; the median age was 68 (range 30-88) years. 11/42 patients suffered deep wound dehiscence and the abdomen was left open at laparotomy in 31 patients.

In 30/42 TNP* abdominal dressing system and TNP. In the remaining 12 TNP dressing* and TNP were used. Additionally, 5 patients required a mesh to control the oedematous bowel, 3 disintegrated within few days due to sepsis. In 25 cases it was unwise to close the abdomen due to severe contamination; in the remaining 17 we were unable to close it due to bowel oedema. Delayed primary closure was carried out in 22/42 patients in 2 weeks or less. 4/22 patients died. 34 patients had anastomotic lines, 2 developed intestinal fistulae, both survived.

Discussion: 4% of patients developed intestinal leaks which is an acceptable figure in such difficult situations. This study confirms our earlier findings and does not support reports suggesting a higher leak rate or spontaneous fistulae with TNP use. We feel the use of TNP in the open abdomen is safe and in our experience positively helpful, particularly in patients with severe peritonitis.

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