

Open abdomen – a plan in management or a disease itself?

Background:Open abdomen remains of vital importance in patients undergoing damage control surgery (DCS). Although helpful in avoiding abdominal compartment syndrome (ACS), it is also associated with various complications.

Aim:To study the outcome in patients managed with open abdomen.

Methods:Patients managed with open abdomen following trauma laprotomy from year 2013-2017 were included. AIS >3 in other body regions, index surgery at other hospitals, death within 1st48 hrs, infants and pregnant females were excluded. Clinical profile, coagulopathy, acidosis and fluid resuscitation were evaluated and compared between 2 groups: with and without intra-abdominal complication. SPSS was used for statistical analysis and Univariate analysis was performed.

Results:113 patients were included. Male to female ratio was 10:1. Most common indication for leaving abdomen open was DCS (67%). 10 patients developed entero-atmospheric or entero-cutaneous fistula (ECF/EAF). 52 patients developed intra-abdominal sepsis (IAS). The only significant association found was of platelet count but it was more likely a chance association as in both groups' platelet count were above 100,000. 5 out of 10 patients with ECF/EAF had bowel injuries, while 2 had pancreatic injuries. No association was found between any clinical or resuscitative parameters with development of intra-abdominal sepsis. A similar evaluation of intra-abdominal sepsis was performed, in which case also none of the above mentioned parameters were statistically significant. Although the patients with intra-abdominal sepsis had more requirement of fluid in 1st48hrs (9.2lt), compared to patients' who did not develop IAS (7 litres), but this was not significant.

Discussion:Complication rates in our study were almost double than that reported by Bradley et al (AAST registry group). However, we did not find any association of fluid resuscitation with these complications. Open abdomen benefits the patients in cases of DCS and prevention of ACS. However, at the same time it is associated with fatal complications like ECF/EAF and IAS. So, every effort should be made to close the abdomen once the patient stabilizes as "Open Abdomen itself is a Disease".