Outcomes and Resuscitation of a Patient in Damage Control Surgery

Susi Rui
Department of Medical Sciences, Baba Farid University of Health Sciences, Punjab, India

Description

Damage Control Surgery (DCS) is a surgical procedure that preserves life rather than improving anatomical function. The “lethal trio” of metabolic acidosis, hypothermia, and increased coagulopathy for critically ill patients with extensive haemorrhage disrupting homeostasis is addressed. Despite the possibility of complications, this life-saving technique has considerably reduced the morbidity and mortality of severely ill patients. Patients are stabilised so that doctors can later reverse the physiologic insult before concluding a definitive repair. Surgery professionals should resist the inclination to perform a conclusive procedure since the negative impacts on patients could force them to succumb to the physiologic repercussions of the damage despite the morphological rectification. The leading cause of death among trauma patients remains uncontrolled hemorrhage and accounts for approximately 30–40% of trauma-related deaths. Although trauma surgeons are frequently significantly involved in the care of such patients, the idea has spread to other sub-specialty services. Nursing staff, respiratory therapists, surgical-medicine intensivists, blood bank staff, and others make up the multidisciplinary team that is needed.

Outcomes

The data that have been published regarding definitive laparotomy versus damage control Surgery shows a reduction in mortality in patients who are seriously unwell. A total death of 50% and a morbidity rate of 40% are shown in later studies by Rotondo and colleagues in a cohort of 961 patients who had had damage control surgery. There are four primary issues. A developing intra-abdominal abscess is the first. Up to 83% of this has been recorded. The formation of an entero-atmospheric fistula follows, with a 2–25 percent range. Third on the list is abdominal compartment syndrome, which can occur anywhere between 10% and 40% of the time. Finally, it has been demonstrated that 9–25% of individuals who have had damage control surgery experience fascial dehiscence.

Resuscitation

Damage control resuscitation has significantly changed the way critically sick patients are cared for. Permissive hypotension, transfusion ratios, and a huge transfusion regimen are the three main tenets of resuscitation. For the greatest patient care result, any physiologic derangements can be corrected during the resuscitation phase.

Permissive hypotension: In order to restore blood volume, conventional resuscitation procedures have employed an approach that involves vigorous crystalloid and/or blood product resuscitation. Maintaining a low blood pressure to reduce haemorrhage while continuing to provide appropriate end-organ perfusion is referred to as permissive hypotension.

Transfusion ratios: The war dead have taught us important lessons that can be used in the civilian world for more than a century. Particularly in the early resuscitation of critically injured patients, a paradigm change has occurred over the past ten years. We now know that maintaining a transfusion ratio of 1:1:1 of plasma to red blood cells to platelets in patients requiring massive transfusion improves outcomes as opposed to replacing blood volume with high volumes of crystalloid and packed red blood cells with the intermittent use of fresh frozen plasma and platelets.

Massive transfusion protocol: Initial trauma patient resuscitation is still changing. Up to 5% of civilian trauma patients who come seriously injured require a massive transfusion, which is defined as getting more than 10 units of packed red blood cells in a 24-hour period. Patients who are admitted to trauma centres with severe injuries may be coagulopathic. Actually, records indicate that approximately 25% of individuals arrive with coagulopathy.