Emergency Medicine: Open Access
ISSN: 2165-7548
OPEN ACCESS Freely available online
Perspective

Systemic Infections on Trauma Patients

Veena Priyadarshini S*

School of Life Sciences, Crescent Institute of Science and Technology, Chennai, Tamil Nadu, India

PERSPECTIVE

Sepsis is the main cause of death in hospitals. Sepsis caused by multidrug-resistant organisms (MDROs) is becoming more common. MDROs can colonize weak patients, such as those who are immunocompromised, elderly, or have been in a car accident. Trauma patients who survive the initial injury are more likely to get hospital-acquired infections. These infections can develop to sepsis, which has a very terrible prognosis if they are not diagnosed and treated quickly. The distribution stated was instantaneous death due to on-the-spot injuries, early death due to injury complications, and late death due to organ failure. Sepsis is to blame for these late fatalities. According to the research, the incidence of sepsis in post-traumatic individuals ranges from 2% to 10%. Previous infections, ageing, skin, and intestinal barrier leaks, and weakened defense systems all predispose trauma victims to sepsis, as do comorbidities.

In these cases, a damage control procedure is frequently conducted at the trauma scene or in the emergency department (such as pelvic packing). There may be a shortage of antiseptic procedures in certain situations, and bacteria can quickly colonize the patients. Trauma can depress the humoral and cell-mediated immune systems, resulting in immune system deficiencies. The function of lymphocytes is reduced after major trauma. The ability of neutrophils to chemotaxis and deliver antigen to monocytes is diminished. Components of the complement system have also changed. Patients who have survived trauma in a trauma center must be closely monitored to detect early infection and prevent sepsis. Early identification and timely and adequate treatment of sepsis, as in other domains, can save lives and reduce trauma mortality.

Due to changes in the respiratory mechanism, Hospital-acquired Pneumonia (HAP) is one of the most prevalent NPIs (nosocomial post-traumatic infections). It is more likely in patients with head, thorax, and abdomen injuries. Physiological changes in aged patients have a significant impact on the body, making it more susceptible to opportunistic infections. Obesity was found to be an independent risk factor for NPIs, as lung and wound infections were significantly more common in obese patients. Males, patients with a history of cardiac disease, high ISS or RTS, and patients with a history of malignancy had a greater incidence of nosocomial pneumonia in trauma patients, according to the study. Patients with nosocomial pneumonia had a greater risk of mortality, but there was no gender-specific difference in mortality among pneumonia patients. After a hemothorax, penetrating trauma to the chest, perforation of the diaphragm, contiguous infection, and protracted chest tube implantation, empyema's are an uncommon infective consequence. The use of an indwelling urinary catheter is the leading cause of urinary tract infections. In trauma patients, these infections are linked to a higher fatality rate. Although *Escherichia coli* is the most isolated species, it accounts for less than one-third of all isolates. Other *Enterobacteriaceae* are also isolated, including *Klebsiella* species, *Serratia* species, *Citrobacter* species, and *Enterobacter* species; non-fermenters like *P. aeruginosa*; and gram-positive cocci such coagulase-negative *staphylococci* and *Enterococcus* species. The use of the urinary catheter should be stopped as soon as possible.

It's also crucial to follow asepsis guidelines and maintain strict hygiene when using a urinary catheter. Intravenous resuscitation is an important element of the trauma patient's care. They are, unfortunately, a common source of bloodstream infections. In critically ill trauma patients, Central Line-associated Bloodstream Infections (CLABSIs) are potentially lethal infections that are linked to a significant increase in length of stay and total hospital cost. Strict adherence to sterile technique has become a quality improvement measure for reducing CLBSIs. Length of stay, existence of prior infection, percentage change in serum albumin levels, multiple invasive operations, transfusion of 10 or more units of blood, number of central venous catheters, and presence of a chest tube are all risk factors for bloodstream infections in trauma patients. HVIs (Hollow Viscus Injuries) are associated with a high rate of morbidity and mortality. Both penetrating injury and blunt trauma cause HVIs.

Correspondence to: Veena Priyadarshini S, School of Life Sciences, Crescent Institute of Science and Technology, Chennai, Tamil Nadu, India, Tel: +9500084421, E-mail: veenapriya31@gmail.com

Received: November 08, 2021, **Accepted:** November 22, 2021, **Published:** November 29, 2021

Citation: Veena PS (2021) Systemic Infections on Trauma Patients. Insights Biomed. 11:214.