Editorial

Sepsis: How simply the problem can be solved?

Mohammad Ataur Rahman

The biological state of human being is not a germfree environment. Prevention of wound infection and sepsis in abdominal surgery shortens the hospital stay, minimize the expenditure, and avoids the morbidity and mortality. It is a joint responsibility of the surgical team paramedical staff, patient, and also the bacteriologists.¹

The molecular pathophysiology of sepsis syndrome in human remains poorly understood. Sepsis is caused by severe infection resulting in overwhelming inflammation. Infections can be due to bacteria, viruses, or fungi. Common types of infections include: cellulitis, urinary tract infection, dental abscess, viral respiratory illness, Pneumonia. Sepsis is one of the most alarming and life threatening response of the body to infection. So if we can control infection, virtually there will be no more sepsis.²

Without early and aggressive treatment, people with sepsis get worse quickly, and can develop severe sepsis, septic shock, and death.

People who are at higher risk for sepsis include: The elderly, People with diabetes, People on dialysis for kidney failure, People who have cancer, especially those getting chemotherapy, People who have had an organ transplant, People who have a weakened immune system or are taking medications that affect the immune system, People with severe or hard-to-treat infections on long-term antibiotics, People with severe burns or skin disorders, Anyone who has a history of sepsis in the past. Common signs and symptoms include: Shivering, fever, or chills, Pain and discomfort - usually aching all over the body, Pale, clammy skin, that can change colors, Difficulty breathing, Feeling sleepy, agitated, or confused.³

In surgical practice, in many cases we need to open the skin by making incisions which reduces the protection of the body to a minimum; so if proper aseptic measures are not taken during surgery, the chance of infection is increased to a maximum thereby chance of sepsis. To prevent sepsis, the measures we can take measures to correct from patient side –malnutrition, anemia, dehydration, diabetes, hypertension etc.

Before operation, if the field of operation is hairy, the hair should be shaved. And on the operation table, the field of operation should be painted by antiseptic lotion and after that sterile dapping is done. All there will reduces the rate of infection. The members of the surgical team should take all aseptic precautions namely – changing of street dress, wearing of OT dress, scrubbing, gowning and gloving sequentially, the instrument which will be used by the surgical team should be well sterilized.

If the chance of infection is reduced, chance of sepsis would be reduced as well. Although the role of aseptic precaution is immense, there are other factors which are also contributing to reduce the chance of infection rate too like OT environment, the temperature of OT, laminar air flow, minimum extra articles in the OT, and time to time culture for microbial agents from OT environment. Managing aseptic conditions of OT articles other than OT instrument will also help in reducing the infection.⁴

Sepsis can never be accepted at all as it is potentially hazardous for ailing person, increases the morbidity even can kills a patient and an economic burden as well. Finally, the surgeon should adapt a checklist regarding decision-making, and avoidance of complication is all that requires for achieving good results.⁵

Mohammad Ataur Rahman, Professor and Head, Department of Surgery, Z H Sikder Women's Medical College & Hospital

References

- Cuschieri A, Giles GR, Moossa AR, editors. Essential Surgical Practice - A Cuschieri. 3rd ed. Oxford, UK: Butterworth-Heinemann; 1995. p. 72-89.
- What Is Sepsis? American Thoracic Society. Available from: URL: <u>https://www.thoracic.org/patients/patient-resources/resources/sepsis.pdf</u>
- Williams N, O'Connell P R, McCaskie AW. Edited, Bailey & Love's Short practice of surgery, 27th edition 2018, CRC Press Taylor & Francis Group, 6000 Broken Sound Parkway NW.
- 4. Manual of Basic Surgical Skill, Bangladesh College of Physicians and Surgeons, Mohakhali, Dhaka, Bangladesh.
- 5. WHO. WHO guidelines for safe surgery: 2009: safe surgery saves lives.