

WHAT ARE THE KNOWN MECHANISMS OF SSI AND WHICH FACTORS ARE RESPONSIBLE FOR THE DEVELOPMENT OF SSI?

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Introduction: SSI is divided into: Superficial, Deep and Organ Space, but only superficial SSI will be covered in this presentation. According to Centre for Disease Control and Prevention (CDC) the definition of SSI is: 1. occurring within 30 days; 2. only involving skin or subcutaneous tissue and 3. One of the following: Purulent drainage, organisms isolated or clinical signs of infection.

Mechanisms: SSI is a result of a changed in the balance of microbial conditions (type, number and virulence of bacteria) and the host resistance (resistance in the local wound tissue).

Influencing factors: Prevention of SSI primarily includes: Preoperatively: prophylactic antibiotics, supplementary oxygen, smoking, optimal hygienic precautions; Peroperatively: correct surgical incision, short duration of surgery, optimal surgical and suture technique and optimal use of surgical materials (sutures, drains, dressings etc); Postoperatively: optimal dressing selection, use of surgical materials and avoiding wound fluid and haematoma.

In this presentation especially the influence of Oxygen and smoking will be discussed.

Conclusions: SSI is a major barrier for healing of surgical wounds. One of the main reasons for development of SSI is insufficient oxygen level in the injured tissue, for which reason factors like oxygen delivery, smoking etc. are important.

References:

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