Wound infections

Wound infections are nosocomial infections. The *exogenous* source is most often the medical staff or another patient. If the source are the patients themselves, then it is called an *endogenous* infection. Transmission occurs through droplets, dust, contaminated objects, non-disposable examination tools and instruments, excrements or hand contact. Three factors are essential for the development of an infection:

- source of infection,
- transmission of the infectious agent (microbe),
- perceptive individual.

Despite every effort to perform surgeries aseptically, most surgical wounds end up being contaminated.

Classification of wounds by the presence of contamination

1. **Clean wounds** assume insignificant contamination, the incidence of infections is usually below 1%. The related surgeries are, for example, hernias, goiters, breasts, varices, etc.
2. **Clean - Contaminated Wounds** are mildly contaminated, mainly endogenously. The incidence of infections is about 2%. These include cholecystectomy, removal of non-inflamed appendix, stomach resection.
3. **Contaminated wounds** have a 5-30% risk of infection. It can be reduced by antibiotic prophylaxis or by certain surgical techniques. This includes surgeries on an unprepared intestine, stomach resection for bleeding or tumor, appendectomy due to appendix gangrene.
4. **Infected - Contaminated Wounds** are immediately contaminated with infection during surgery. We expect such wounds in peritonitis, chest empyema, abscess surgeries, etc.

Diagnostics

Any postoperative body temperature change requires wound inspection. Typical signs of postoperative infection include:

- pain,
- sensitivity to palpation,
- skin edema,
- redness,
- secretion.

The infection may be latent and have a silent course due to antibiotic treatment. A medical professional should take sampling for cultivation and inspect the wound following sterile precautions. In case of deeper infections, ultrasound or CT can be used.

Prevention

The basic pillars of prevention include:

- physiological surgery,
- maximum limitation of contamination during the surgery (isolation with masks, drapes, etc.),
- ATB prophylaxis,
- for significantly contaminated wounds - suturing of the innermost layers only, leaving the surface unsutured and covered.

Treatment

The basis of therapy is the opening of the wound, followed by irrigation and dressing, or necrosis excision. The most severe abdominal infections can be treated by laparostomy with permanent mesh application.

Links

Related articles

- Complications in surgical wounds

Source

- BENEŠ, Jiří. *Studijní matriály* [online]. [cit. 2010]. <http://jirben.wz>

References

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