Necrotizing fasciitis

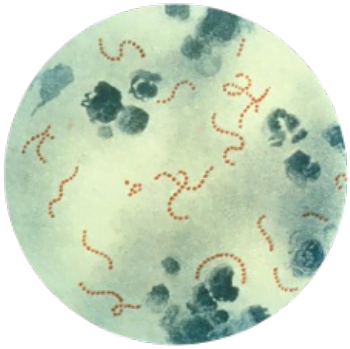
Necrotizing fasciitis is **serious bacterial infectious disease**, which **affects the fascia and dermis**. It is relatively rare, but on the other hand it is a life-threatening disease with a very serious prognosis.

(a) (b)

Necrotizing fasciitis

Pathogenesis

The causative agent is **Streptococcus pyogenes** group A. These are bacteria of the normal flora of the skin, rectum or urethra, which most often penetrate the subcutaneous tissue through a small skin lesion or surgical wound. Subsequently, extensive necrosis of the subcutaneous and superficial skin occurs. **Necrosis of the subcutaneous tissue is deep** and penetrates the fascia, which can also affect it. There is also **necrosis of blood vessels and nerves**. However, the muscles are affected. **Lethality is about 50%, up to half of the patients have a limb amputations.**



Streptococcus pyogenes

At-risk groups are:

- diabetics,
- immunocompromised and geriatric patients,
- patients with alcohol and drug abuse,
- patients on corticotherapy.

It is reported that necrotizing fasciitis can arise as a complication of Cellulite.

Clinical signs

Sudden pain in the affected area. There is **redness, swelling and soreness around the wound, and purple to blue-gray spots** develop rapidly. A bull with a dense red content will also form. The wound may gradually become **insensitive**. The general symptoms then point to **sepsis**, sometimes in addition to **streptococcal toxic shock syndrome**.[1]

Physical finding

- Temperature,
- Wound pain and redness,
- Swelling of the skin
- Crepitus,
- Later skin necrosis imitating burns pf the III. degrees.

Diagnosis

Diagnosis is based on the clinical picture, **laboratory findings** (high inflammatory indicators and high creatine phosphokinase activity), microscopic and culture findings from Exudate, hemo-culture, might be positive. Of the imaging methods, **CT examination** has its irreplaceable application.

Therapy

Early and sufficient radical **surgical treatment** consisting of removing necrotic tissue - early **debridement or amputation**. Theoretically, it would be enough to treat the patient with crystalline penicillin IV, but other bacteria (staphylococci and anaerobes) may also be involved in this disease. Therefore, we prefer "beta-lactam antibiotics" (co-piperacillin, co-ticarcillin, imipenem, meropenem) with **clindamycin**.

References

Related articles

- Celulitis
- Gangrene

Literature

- HAVLÍK, Jiří, et al. Infektologie. 2. vydání. Praha : Avicenum, 1990. 393 s. ISBN 80-201-0062-8.

Reference

1. ROZSYPAL, Hanuš. *Základy infekčního lékařství.* 1. vydání. Praha : Karolinum, 2015. 566 s. ISBN 978-80-246-2932-2.