

# **Exudate Management with NPWT in Mesh Suppuration after Abdominal Wall Reconstruction with Mesh Implantation**

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# **Causes that slow down the wound healing**

- **The exudate in non-healing wounds decreases or even prevents cell proliferation,**
- **Interferes with growth factor availability,**
- **Generally contains elevated levels of inflammatory mediators and activated metalloproteinases.**

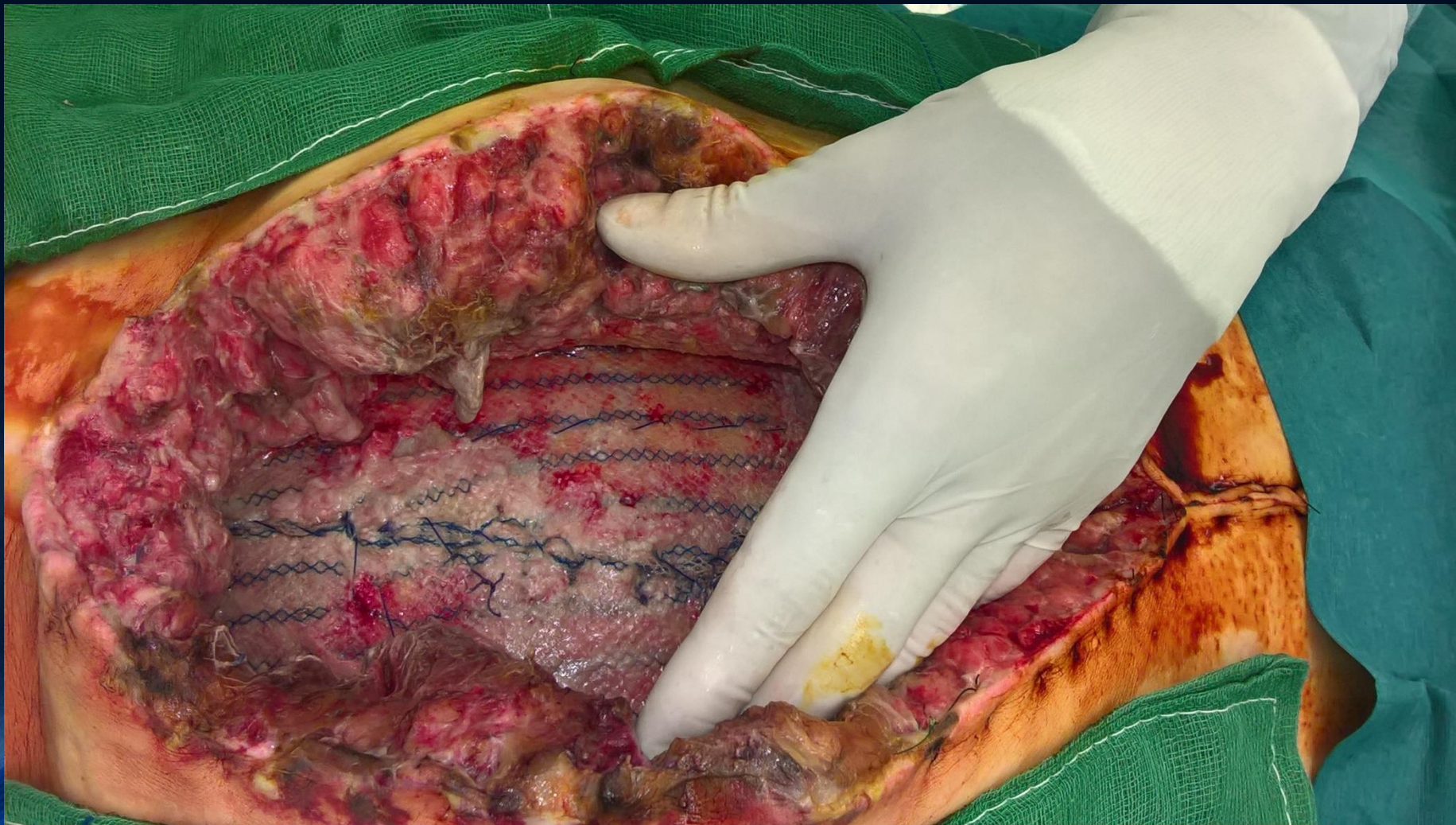
# **Positive effects of NPWT on wound healing in mesh suppuration**

- **Removing of exudate with bacterial and toxic agents**
- **Cleansing of mesh surface**
- **Prevention of superinfection**
- **Promotion of granulation tissue formation**

# Treatment Algorithm

- **Abdominal wall reconstruction with onlay mesh implantation**
- **Signs of suppuration or fistulisation**
- **Wide exploration of the wound**
- **Necrosectomy, cleansing of the wound**
- **Bacterial stain examination**

# Treatment Algorithm



# Treatment Algorithm

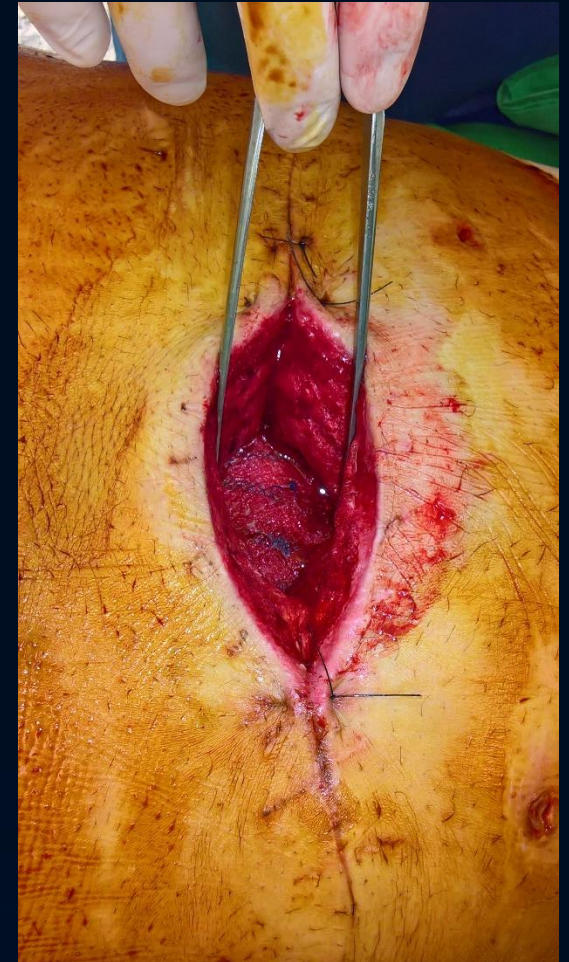
- **Saving the implanted mesh**
- **Insertion the polyurethane sponge in the wound bed**
- **Applicate the complete NPWT set**
- **Start -120 mmHg continuous negative pressure**
- **Control the level and the quality of the exudate**

# Treatment Algorithm



# Treatment Algorithm

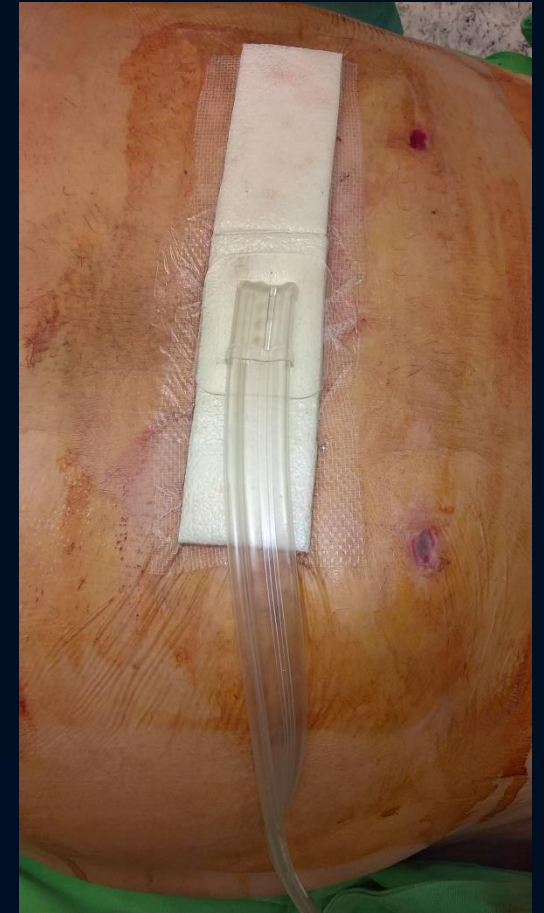
- **Change the NPWT to intermittent suction if**
  - **The level of the exsudate decreased**
  - **The exudate is so called „clean”**
  - **The granulation of the wound bed is sufficient**
  - **The implanted mesh is beginning to be covered by granulation tissue**
- **After 1-2 cycles of intermittent NPWT**





# Treatment Algorithm

- Close the wound
- Possible techniques for wound closure
  - Primary closure
  - Primary closure with „iNPWT”
  - Primary closure with redon drainage
  - Left the wound open



# Treatment Algorithm



# Patients

- **21 patients**
- **8 male, 13 female**
- **All patients had abdominal wall reconstruction with onlay mesh implantation**
- **Comorbidities**
  - **DM, obesity, hypertension, hepatic cirrhosis,**

# Results

- **21 patients**
- **Mesh salvage rate was 81% (17 patients)**
- **Partial mesh salvage rate was 9.5% (2 patients)**
- **Primary wound closure rate was 76.2% (16 patients)**
- **Secondary wound closure rate was 23.8% (5 patients)**

# Conclusions

- **The NPWT was successful in evacuating exudatum from septic wounds.**
- **NPWT has good effect on the mesh salvage in cases of mesh suppuration**

**Thank you for your attention!**