Comparison of treatment results in patients with trochanteric pressure ulcers with and without hip joint involvement

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Introduction

- At least 13 different local flaps for trochanteric pressure ulcers (PU)
- “Workhorse” for trochanteric region is tensor fascia lata muscle flap (TFL)
- V-Y flap fassion
- Hip joint involvement worsens prognosis

Janis JE *et al*., Selected Readings in Plastic Surgery. 9:1-42, 2003

Luis H.Ishida *et al.,* Tensor fasciae latae perforator flap:minimizing donor –site morbidity in the treatment of trochanteric pressure sores. Plast Reconstr Surg. 116: 1346,2005.

Tahsin Oguz Acarturk, Treatment of large ischial ulcers communicating with hip joint with proximal femoral resection and reconstruction with a combined vastus lateralis, vastus intermedius and rectus femoris musculocutaneous flap. Journal of Plastic, Reconstructive and Aesthetic Surgery, 62: 1497-1502, 2009

Treatment steps

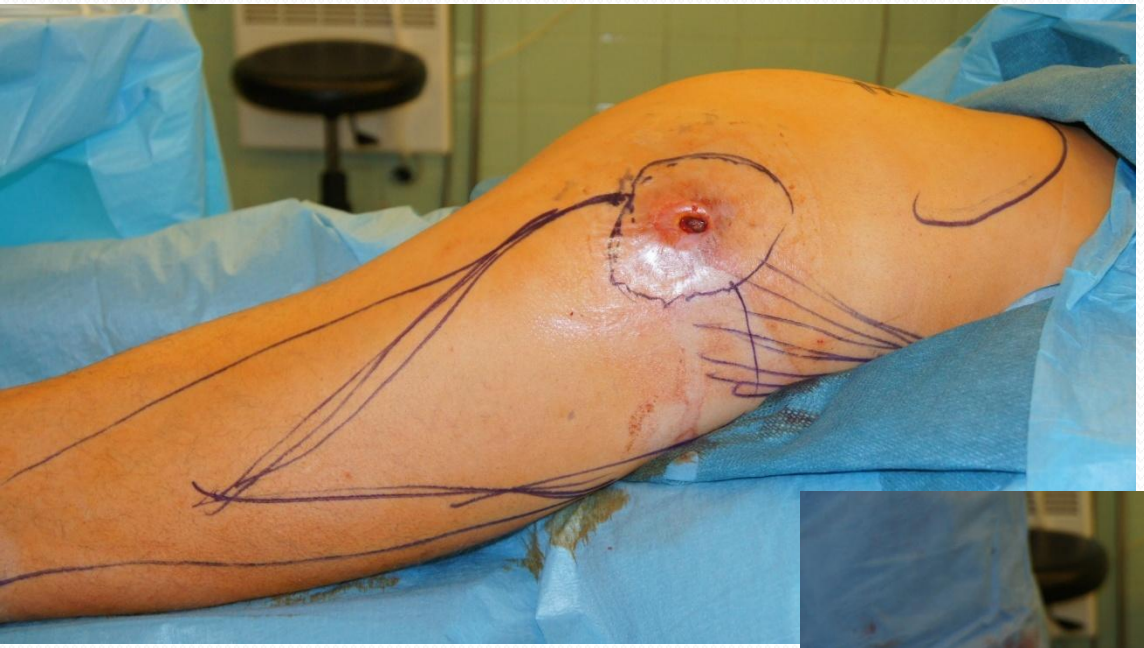
Joint NOT involved

- Debridement
- NPWT if needed
- Closure with fasciocutaneous TFL flap

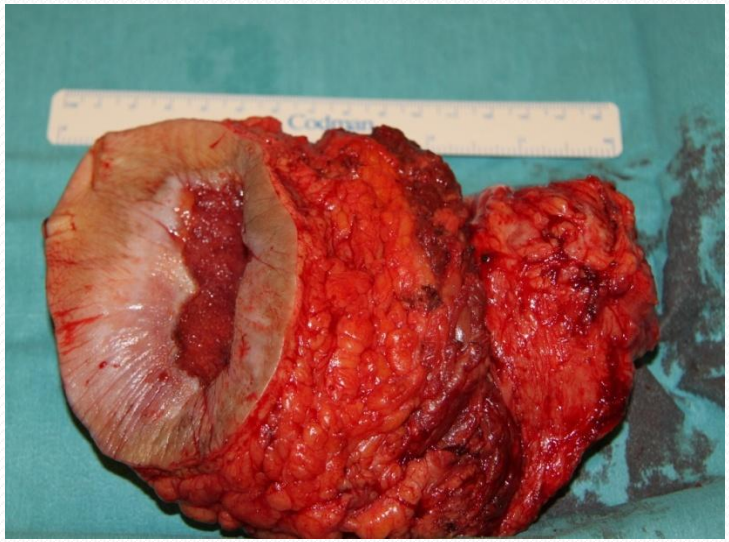
Joint involved

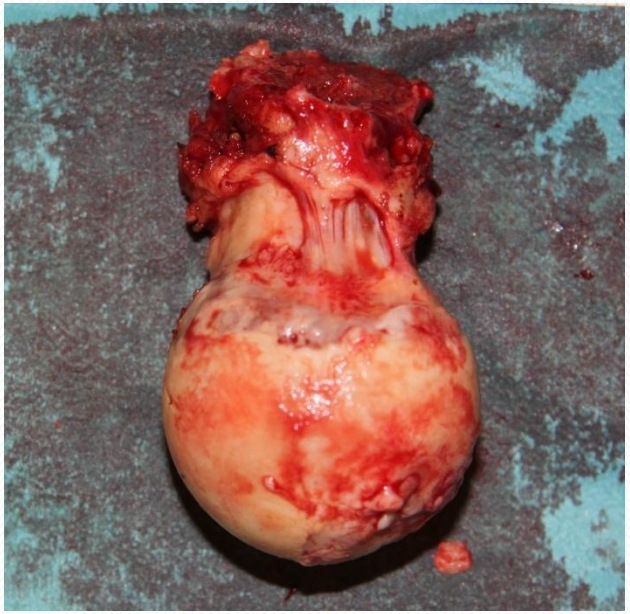
- Debridement
- Hip joint resection (Girdlestone procedure or proximal femoral resection)
- NPWT if needed
- Closure with fasciocutaneous TFL flap AND muscular flap for joint space

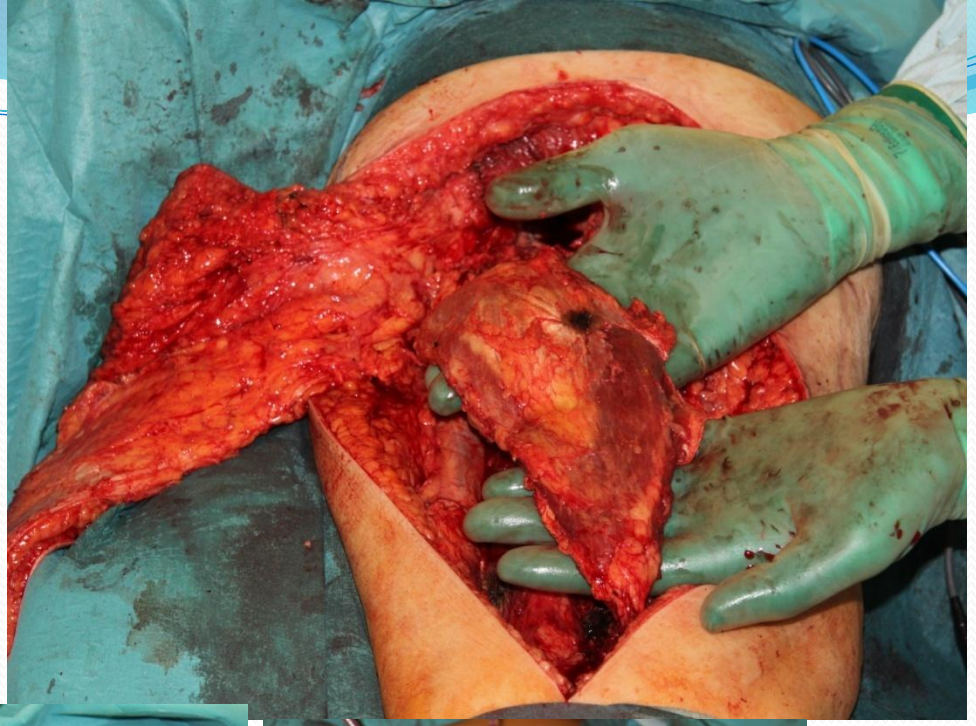
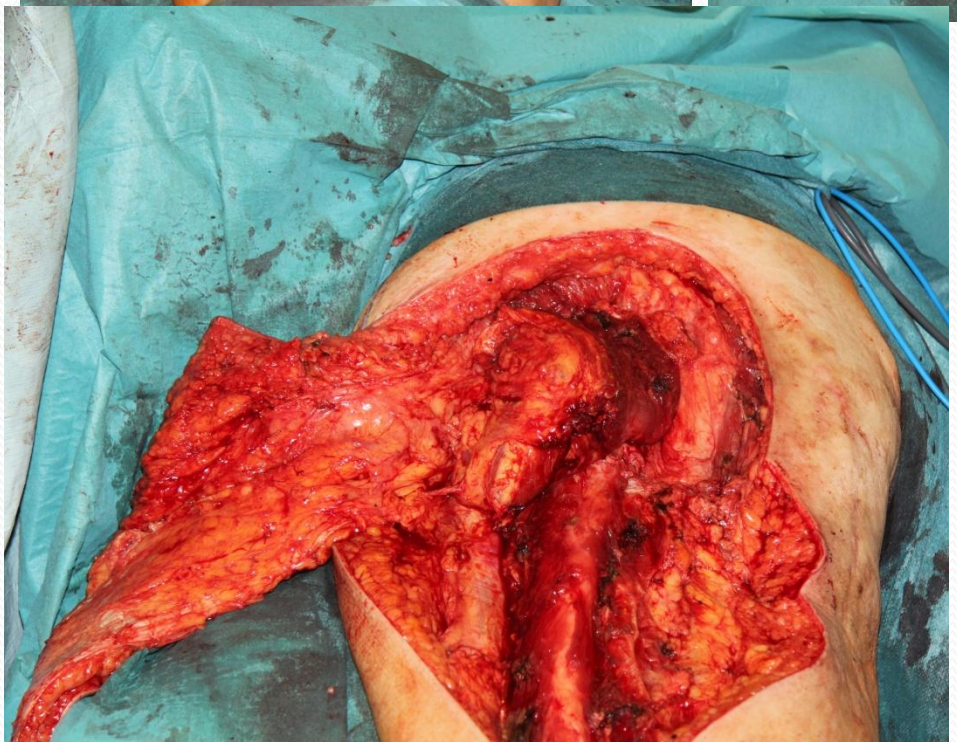
Grade 5 trochanter PU



Grade 6 trochanteric PU






Aim and Methods

- Aim – to assess impact of hip joint involvement in trochanteric PUtreatment and complication rate
- Two groups – surgicaly treated patients with trochanteric PU with and without hip joint septic arthritis
- Retrospective data collection, statistical analyses with Stata software (StataCorp (2007))

Methods

- Parameters analysed
  - Total hospital stay
  - Number of reoperations
  - Total surgery time
  - Major clinical course complications (urinary tract infection, pneumonia, SIRS, MODS, sepsis)
  - Number of blood transfusions
  - Local complications (hematoma, seroma, partial or total necrosis, dehiscence)

Results

- From May 2006 to May 2011 71 patient with trochanteric pressure ulcers (PU), 55 underwent surgery
- 37 patients met inclusion criteria – monolateral trochanteric PU with or without hip joint involvement and treated with TFL and vastus lateralis flaps, irrespective of other location PU

Group 1

- 25 patients
- Trochanteric PU **without** hip joint involvement
- TFL flap

Group 2

- 12 patients
- Trochanteric PU **with** hip joint involvement
- TFL + vastus lateralis flap

Group comparison

- Groups did not differ regarding:
  - Median age (Group 1=38.3, Group 2=43.7, p=0.316)
  - Sex (p=0.241)
  - Total number of PU per patient (p=0.361)

- Total hospital stay , days (Group 1=59.5, Group 2=140.3, p<0.001)
- Number of patients having >=1 reoperations (Group 1=44%, Group 2=75%, p=0.077)
- Total surgery time, minutes (Group 1=325.8, Group 2=655.2, p<0.01)
- Presence of any major clinical course complication (Group 1=16.0%, Group 2=33.3%, p=0.217)
- Number of blood transfusions (Group 1=3.2, Group 2= 12,3, p<0.001)
- Presence of any local complication (Group 1=48%, Group 2=83.3%, p=0.073)

Discussion

- Higher grade PU demands longer and more often surgical treatment
- In cases with septic joint arthritis additional surgery steps were performed, that obviously influences treatment course
- Our analysis is limited by small number of observations that resulted in lack of power to detect differencies between groups in some parameters
- It is almost impossible to establish two patient groups with isolated monolater trochanteric PU for such study

Conclusions

- Patient group with septic hip joint arthritis has statistically significantly longer hospital stay and total operation time, and higher number of blood transfusions
- Patients without joint involvement have smaller reoperation rate, less major clinical course complications and less local complications, but it was not statistically significant.

Thank You!

Any questions please?!