Woundmanagement and erysipelas with lymphedema patients

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Conflict of interest

• Nothing to declare

• Unless otherwise described, all photographs and cases are property of UZ Leuven, by Dr. S. Thomis, Prof. Dr. I. Fourneau and Dr. B. Bechter-Hugl and by the woundcare support team.
The treatment isn’t as easy as choosing a new wardrobe ....
Plan of action

1. Etiology of the wound
2. Observe the wound by TIME principals and correct co-morbidities
3. Prevention and pain management
4. Treat the wound by TIME management
5. Report, evaluate and correct everytime when necessary
Patient with lymphedema and wounds

- Lymphedema
- Insufficient lymphatic system
- Damage to lymphatic system
- Erysipelas / Wound
Daily care

Skin problems

Skin and woundcare of lymphedema patients

Wound & infection management

Compression therapy & exercise therapy
Daily care

Skin problems

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Skin problems

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Wound & infection management

Compressiontherapy & exercise therapy
Tinea Pedis

- Poor hygiene
- Intertriginous lesions
- Wet
- Surinfection: fungi
- S/ itchy, flaky skin, open lesions, smelly/ yeast
  - Risk: erysipelas
- R/ iodine soap, antifungal therapy systemic and intact skin (Miconazolnitraat)
Eczema

- inflammation of the upper layers of the skin, causing itching, redness and swelling.
- S/ can cause thickening and hardening of the skin by rubbing and scratching. Without systemic signs of infection.

- Often confused with erysipelas

R/ corticosteroids and local wound care on open skin.
Case eczema

09/11/2021
R/ Elocom 0.1% creme once a day, silicone foam dressing and compression by elastic band

16/11/2021
+ adjuvant creme
Case

F, 79y, History: AHT, Atrium Fibrillation, morbid obesity, PHT, recurrent cellulitis

1. Referred by GP due to untenable home situation. Patient is morbidly obese & bedridden for 2 months with increased confusion and aggression. Question for general examination and social assessment.

2. Edema ++ Chronic lymphedema with eczema.

3. No obvious acute infectious problem anamnestically. Lab: no leukocytosis, CRP 57, RX th: no infiltrate US: no pyuria

4. Known AF R/ Xarelto

5. Plan: consult lymphedema, social assistance, dermatologist/wound consult
Dermovate ointment 1x/day 2 weeks, then slowly reduce (e.g. 1x/2 days 2 weeks, 2-3x/week until full resolution)
Intake intensive program – lymfe clinic
23/08/2021
Skin and woundcare of lymphedema patients

Daily care

Skin problems

Wound & infection management

Compression therapy & exercise therapy
Cellulitis/ erysipelas

= acute infectious disease of the skin and subcutaneous tissue.

If wounds: often wet and superficial

Infection with Streptococcus pyogenes and/or Staphylococcus aureus.

S/ high fever, CPR increase, leucocytosis and red, painful swelling of the skin.
R/

• Quick response!
• Cool down:
  – Antibiotics (Recurrent >2 episodes a year = chronic use of AB)
  – Physical cool down with saline dressings
• Don’t stop compression therapy!
  – Pause in extreme infection phase and restart as soon as possible
Pathogen: Streptococcus pyogenes

Daily dose for 10-14 days:
- penicillin G 6 X 1 ME I.V.
  OR
- clindamycin 3 X 600 mg I.V.
- clindamycin 3 X 600 mg P.O.

Note: local care of entrance port and good lymphatic and venous drainage are important.
TIME-model

Tissue
- Aspect of tissue?
- Location?
- Fistula?
- Contact with bone?

Infection
- Impasse in woundhealing?
- Signs of infection?
- Systemic repercussion?

Moisture balance
- Degree of exudate?
- Color?
- Moisture with smell?

Edges
- Normal epithelialisation?
- Maceration or dry skin?
- Trauma (MARSI)?
Tissue

- Aspect of tissue?
- Location?
- Fistula?
- Contact with bone?

- Red granulation, often debris in wound
- Location: often around the ankles, pretibial
- Rather superficial but extensive lesions
- Clinical examination: Normal pulsations (sometimes difficult to feel because of edema), sometimes accelerated CR, normal temperature
- Pain decreasing with elevation of legs. Increasing when cleaning the wound
- Skin and nails: dry scaly skin, papillomatosis, keratosis, warts, signs of chronic venous disease
- Pitting edema/fibrosis
Treatment plan: cleaning

Tissue management

- Cleaning of woundbed
- Debridement?
Infection

- Impasse in wound healing?
- Signs of infection?
- Systemic repercussion?

**Contamination**
(Host control)

**Colonization**
(establishe microbial population, host control, microbial balance)

**Critical colonization**
(establishe microbial population, wound not progressing, microbial imbalance, no signs of infection)

**Infection**
(Microbial control)

**HOST RESISTANCE**

**MICRO-ORGANISM**

R/ Topical antiseptic agents

R/ systemic antibiotics & Topical antiseptic agents
Infection Control

Figure 3: Infection continuum (IWII, 2016)
Treatment plan

Infection management

• Bacterial balance

When necessary?
– In case of dirty wounds
– Wounds with signs of infection
– Wounds in patients with reduced resistance

Antiseptic agent?
– Aqueous disinfectants
– First choice: polyvidone iodine-based antiseptics.
– Identification of alternatives: acetic acid (P. Aeruginosa), chloramine, chloorhexidine 0.05% in water.
– Biofilm: Prontosan®, Actimaris®
Moisture balance

- Degree of exudate?
- Color?
- Moisture with smell?
Moisture balance

• Moist woundbed

Care goal?

TIME - principals

Moist woundbed

Use active dressing to balance exsudate and protect skin edges
Active dressings: groups

- Gauze dressings (ladine)
- Hydrogel
- Alginogel
- Honey ointments
- Hydrofibers
- Alginate dressings
Active dressings: groups

- PU film dressings
- Hydrocolloid: small, superficial lesions
- Foam dressings: granulating phase, superficial, moderate exsudate
Wound care products: infection

First choice: polyvidone products

Second choice: Silver Honey Alginogel (Flaminal Forte/Hydro®) PHMB dressings No antibiotics
Edges

- Normal epithelialisation?
- Maceration or dry skin?
- Trauma (MARSI)?
Barrier/ skin protectants

- Sprays
  - Cavilon®, Silesse®, ...

- Cremes
  - Cavilon®, Cutimed®, Proshield®
  - Medihoney Barrière crème®, ...

- Cavilon Advanced Skin Protector®

- Zinc oxide creams/pastes
  - Zinc oxide, Inotyol®, Calmoseptine®, ...
  - Fungal infection: Crème (Chloorhexidine digluconaat 0,5% - Nystatine 100.000E/g – Zinc oxide 10% - CANI ad 100%)

Edges
- Protect quality of skin/edges
Case 1: blister formation during compression therapy 04/11

- A blister anterior side of the right lower leg
- Blister was removed at the patient's request
- R/ Application of polyvidone iodine dressing (Isobetadine-tulle); extra padding
- Alternative: silicone foam border (goal: low frequency and stimulate epithelial growth)
Follow-up 9/11

- Cleaning up woundbed and skin!!
- Hydrofiber AG
- Goal: exudate management and low frequency woundcare
Case 2: high exsudate

- M, 56 years old
- Morbid obesity 200kg
- Lymphedema bilateral

Intensive programme

Start follow-up 12/2020
No progress under Flaminal Forte (alginogel)
Case: high exudate 12/2020

R/
Debrisoft 2*/w
Actimaris antiseptic agent (natriumhypochloriet)
Zinc paste
Actimaris woundgel
Drawtex
Absorbend pad
Bandages
Compression therapy
Follow-up

18/12/2020

14/12/20

21/12/2020
Follow-up

04/01/2021

04/03/2021
04/03-15/04 6 sessions L-PRF
22/04 Pseudomonas

Stop L-PRF, start acetic acid 2% and polyvidone iadine tulle
Multidisciplinary approach
Thank you for your attendance

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