Adjustable velcro compression devices in self management of venous leg ulcers in elderly patients: case series

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GP's request:

„Vascular examination and prescription of compression therapy“

What therapy to offer to the patient?

To be effective, **wanted** and **self-managed** by a patient

Does not want

Does not manage

„**never gonna wear that**“
## Diagnostic overview

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Pat. No. 1 F 82 y</th>
<th>Pat. No. 2 F 75 y</th>
<th>Pat. No. 3 M 90 y</th>
<th>Pat. No. 4 F 79 y</th>
<th>Pat. No. 5 F 76 y</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Art. hypertension</strong></td>
<td>yes</td>
<td>yes</td>
<td>yes+ CHD (MI, CS)</td>
<td>yes</td>
<td>yes</td>
</tr>
<tr>
<td><strong>DM type 2</strong></td>
<td>yes (OAD)</td>
<td>no</td>
<td>no</td>
<td>yes (IDDM)</td>
<td>no</td>
</tr>
<tr>
<td><strong>PAO /Fontaine st.</strong></td>
<td>Fontaine I.</td>
<td>nie</td>
<td>Fontaine I.- II.</td>
<td>Fontaine I.</td>
<td>no</td>
</tr>
<tr>
<td><strong>Arthrosis</strong></td>
<td>coxarthrosis, gonarthrosis</td>
<td>coxarthrosis l.sin. TEP arthrosis lt. ankle</td>
<td>arthrosis rt. ankle</td>
<td>gonarthrosis, arthrosis of ankles</td>
<td>arthrosis of ankles</td>
</tr>
</tbody>
</table>
## Compliance of patients with therapy

<table>
<thead>
<tr>
<th></th>
<th>Th. ulcus cruris</th>
<th>Pat. No. 1</th>
<th>Pat. No. 2</th>
<th>Pat. No. 3</th>
<th>Pat. No. 4</th>
<th>Pat. No. 5</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>OP/Skleroth.</strong></td>
<td>Does not want</td>
<td>Does not want</td>
<td>Does not want</td>
<td>Does not want</td>
<td>Does not want</td>
<td>Does not want</td>
</tr>
<tr>
<td><strong>Ulcer dressing at home</strong></td>
<td>Does not manage</td>
<td>Does not manage</td>
<td>Manage (?)</td>
<td>Manage (?)</td>
<td>Manage (?)</td>
<td></td>
</tr>
<tr>
<td><strong>Medicam. Th</strong></td>
<td>ATB, Sulodexide, ASA, MPFF, Naftidrofuryl</td>
<td>ATB, Sulodexide, ASA, MPFF</td>
<td>Sulodexide, ASA, MPFF, Pentoxyph. Statin</td>
<td>Sulodexide, ASA, MPFF, Naftidrofuryl</td>
<td>Sulodexide, ASA, MPFF, lok. corticoids</td>
<td></td>
</tr>
<tr>
<td><strong>Elastic stockings thigh lengths class II.</strong></td>
<td>Does not want/manage</td>
<td>Does not want/manage</td>
<td>Does not want/manage</td>
<td>Does not want/manage</td>
<td>Wants/ manages (?)</td>
<td></td>
</tr>
<tr>
<td><strong>Short stretch bandages</strong></td>
<td>Wants/ does not manage</td>
<td>Partially manages</td>
<td>Does not want/manage (harmful)</td>
<td>Does not want/manage</td>
<td>Wants/manages</td>
<td></td>
</tr>
<tr>
<td><strong>Local therapy</strong></td>
<td>Debridement, H2O2, Boric acid, Povidone iod, Alginate Ag, TTC ung, Framykoine pulv., medic. honey, absorbtion dressings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Case No.1 (classifications and wound):

C₆EpAs,pPr
VCSS: 24

Histol.: stasis dermatitis. Vasculitis not confirmed
Cultiv: *Pseudomonas sp.*
(sensit. Colistin, Meropenem)
Th: p.o.Augmentin, Ciprofloxacin,Ofloxacin, Lok. Neo+Bac. pulv, TTC ung.

Is this ulcer treatable nonoperatively?
Patient No.1 (healing) 5 1/2 M


Ulcer still healed after 29 M
Case No.2 (classifications + wound):

C₆EpAs,p,dPr
VCSS: 20

Histol.: vasculitis not confirmed
Cultiv.: *Pseudomonas aeruginosa*
(sens. Lok. Kolistin, Neo+ Bacitr. )
*Enterococcus faecalis*: Sens. AMP ,
*E. coli*: AMP+ Sul
Th: p.o.Augmentin,
Lok. Neo+Bac. pulv, TTC ung.
Patient No. 2 wound healing (I.)

12.8.15  2wks el. bandage  26.8.15

Is this ulcer treatable nonoperatively?
Patient No. 2  wound healing (II.) 4M 1wk

26.8.15  3wks  JuxtaCures  17.9. 15  14 wks  JuxtaCures  23.12.15

Ulcer still healed after 22 M
Case No. 3 (application Juxtafit™ AFW):
Case No. 3 – wound healing

education

12.11.15  6wk Juxtafit  AFW  30.12.15

Selfmanagement

6wk  16.2.16  8wk  11.4.16  Off compression  7.7.17
Case No. 4  - Ulcus cruris : 7x Rt leg, 8 x Lt leg

10.2.2016  3wks elast. bandage  3.3.2016

Cultiv: *Morganella morganii*  
*Proteus mirabilis* (AMP+Sul ) 
Th: debridement  
Lok. Neo+Bac. pulv,TTC ung.  
Inadine, Betadine, Aquacel Ag, medic. Med.

Is this ulcer treatable nonoperatively ?????
Pat. No. 4.: 1st day inelastic compression

Rt. leg: circumference 60cm
12 segments by 5 cm (linear USG probe)
Pat. No. 4.: 1st day inelastic compression (II.)
Pat. No. 4 USG (anterolateral aspect, segm.12)

Before compression (24,2mm) After 4+4 h. compression (20,4mm)

Leg circumference: 60 cm
Oedema (thickness): 24,2mm

Circumference: 52 (-8) cm
Oedema (thickness): 20,4 (-3,8) mm
Pat. No. 4 Lymphoedema + Ulcus cruris 7x Rt leg:

10.2.2016  3wk EB
3.3.2016  16 wks ACVD

HEALED  recurrence

Are these ulcers treatable nonoperatively ???

8.9.2017
Pat. No. 4 - Lymphoedema + Venous leg ulcer 8 x Left leg


Are these ulcers treatable nonoperatively???

8.9.2017
Case No. 5 (classification + wound):

C₆EpAs,p,dPr

Th: local treatment, Ag, Povidone iodine, Lok. Neo+Bac. pulv, Triamcinolon ung.
Patient No.5 (combination of compression):
Patient No. 5

26.4.2017

Is this ulcer treatable nonoperatively?

13.6.2017
When can we achieve long term healing with Velcro devices?

*When treatment that led to complete healing is continuously in use*

+ 

*When multimodal treatment of patient’s comorbidities prevents worsening of associated diseases that increase the risk of ulcer recurrence*

+ 

*compliance (concordance, adherence)*