Benefit of the NOSF absorbent lipido-colloid dressing* in the treatment of arterial ulcers that are stagnant despite a revascularisation procedure

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INTRODUCTION

Here we report our experience of the **new NOSF absorbent lipido-colloid dressing*** (TLC-NOSF), a metalloproteinase inhibitor, in the local treatment of stagnant arterial ulcers in 15 patients with 17 wounds having undergone a revascularisation procedure: angioplasty, stenting, bypass, endarteriectomy and sympatholysis, performed either alone or in combination. Despite this, the wounds had not healed an average of 9.8 months (2-34) after the procedure. The wounds had been present for an average of 12.8 months (6-24), there had been previous surgical treatment in 2/17 cases (tendon resection, necrosectomy). 16/17 wounds had previously been treated with at least 2 different dressings.

PATIENTS AND WOUNDS

The patients, 8 men (53%) and 7 women (47%), had an average age of 79.3 years (53-91), with stage IV peripheral arterial disease (PAD), distal perfusion improved by revascularisation, or at least by sympatholysis, and concomitant venous insufficiency in 73% (11/15) of cases. 67% (10/15) of the patients had hypertension, 53% (8/15) had a history of heart disease, 40% (6/15) had diabetes and 40% (6/15) had a history of smoking. The wound size was 22.5 cm^2 on average (3 to 74.6) with an average depth of 0.4 cm (0.1-1.5). The wound surface area presented at least 20% fibrin. Pain was present for 82% (14/17) of wounds, judged to be severe in 3/14, moderate in 6/14 and mild in 5/14 cases.

RESULTS

The average treatment duration for these 17 wounds using the **new NOSF absorbent lipido-colloid dressing*** was 6.5 weeks (2-14). 76.5% (13/17) of the wounds improved or healed: 41.2% (7/17) healed completely, 35.3% (6/17) presented an average surface area reduction of 72% (49-91%). 1/17 wounds remained stagnant (18% reduction) and 3/17 wounds deteriorated (2 local infections and one maceration following cutting of the dressing). The surrounding skin was improved except for 2 cases, in which cutting of the dressing without more frequent dressing changes led to maceration of the wound margins. At the end of treatment, only 35.3% (6/17) of the wounds were still slightly painful. It should be noted that out of these 6 wounds, 3 were locally infected. Dressings were changed every 3 days on average.

CASE STUDY 1

70 year-old female patient, with hypertension, a history of heart disease and diabetes (NI). PAD with left tibial amputation in 2006. Right superficial femoral angioplasty in June 2007 with good permeability but distal arterial disease. 2 ulcers in 6 months, one on the top of the foot (post-traumatic, tendon resection) and the other on the internal anterior surface of the lower leg.
*D0: **NOSF absorbent lipido-colloid dressing*** (9/08/07) on the foot ulcer only, wound surface area 18 cm^2 (6 x 3 cm), depth: 1.5 cm **(Photo 1)**. D+11 weeks (23/10/07), 97% reduction in surface area (1 x 0.5 cm) **(Photo 2)**.*

Treatment was then continued with a neutral hydrocellular dressing, under which the ulcer stagnated again, then de-epithelialised.
*The 2 ulcers were then treated with the **NOSF absorbent lipido-colloid dressing***, at D0 (8/11/07) the ulcer on the top of the foot had a surface area of 9 cm^2 (4.3 x 2.1 cm), depth 0.2 cm, the ulcer on the internal anterior surface of the lower leg had a surface area of 39 cm^2 (6 x 6.5 cm) **(Photos 3 and 4)**.*

*At D19 (27/11/07) the ulcer on the top of the foot had a red, shiny appearance, but newly formed epidermis was present over the entire surface apart from an area of 0.7 x 0.3 cm. The internal anterior leg ulcer was completely epithelialised, although it was also red in appearance **(Photos 5 and 6)**.*

*The control on D+41 (8/01/08) at the end of treatment with the **NOSF absorbent lipido-colloid dressing*** demonstrated good consolidation of epithelialisation **(Photo 7)**.*

*This consolidation was even more visible at the next visit on 12/2/08 (D+77) **(Photo 8)**.*

CASE STUDY 2

*59 year-old male patient, smoker, PAD with aorto-bifemoral bypass in March 2007, good permeability but persistence of an ulcer on the top of the left foot for 10 months. At D0 of the **NOSF absorbent lipido-colloid dressing*** treatment (20/08/07), the wound measured 10 cm^2 (4 x 2.5 cm) **(Photo 1)**.*
*At the end of treatment at D+9.7 weeks (27/11/07) the surface area of the wound had decreased by 83% (1.68 cm^2, 2.1 x 0.8 cm) **(Photo 2)**.*
*6 weeks after discontinuation of treatment, epithelialisation was complete. The surrounding skin was treated with petroleum jelly **(Photo 3)**.*

CONCLUSION

In patients with an average age of 79.3 years with stage IV PAD, distal perfusion improved by revascularisation but still suffering from large open ulcers (average surface area of 22 cm^2), 9.8 months after the procedure, the **NOSF absorbent lipido-colloid dressing*** led to a rapid resumption in the healing process in 2 to 4 weeks. The wounds were treated for an average of 6.5 weeks, 76.5% of the wounds were improved or healed (41% complete healing, 35.3% with an average reduction in surface area of 72%). The results observed are very interesting in this patient profile, raising the question as to whether it may be useful to start treatment with the **NOSF absorbent lipido-colloid dressing*** immediately after performance of the revascularisation procedure, without waiting for the ulcer to stagnate for at least 2 months.

*** Brand name: The NOSF absorbent lipido-colloid dressing* is UrgoCell® START (Cellostart) from Laboratoires URGO.**