Clinical case study compendium

Exufiber®

Mölnlycke®

Exufiber® – gelling fibre dressing

A clinical case study compendium

In wounds that are progressing through the normal stages of healing, the natural production of exudate supports the process by providing a moist wound environment, facilitating the diffusion of immune mediators, growth factors and tissue-repairing cells across the wound bed, supplying nutrients for cell metabolism and facilitating autolytic debridement. However, if a wound is producing excessive or insufficient exudate, then this can delay the healing process and cause a variety of other problems that adversely affect patient quality of life and add to the cost of care (Table 1)[1].

Wound exudate

Exudate produced in hard-to-heal wounds is typically associated with higher levels of inflammatory mediators and proteolytic enzymes than that associated with wounds that are healing along the normal healing trajectory. The inflammatory mediators stimulate protease production which leads to degradation of growth factors and extracellular matrix in the wound bed, damage to the peri-wound skin, and ultimately delayed healing[2].

Factors that influence the quantity of exudate produced by a wound include its aetiology, location, size, depth, healing phase and underlying pathology. Some wound types are generally associated with high levels (e.g. venous leg ulcers[3]) whereas others typically produce low levels (e.g. arterial leg ulcers[4]) of exudate. The quantity of exudate tends to reduce as healing progresses. Larger and deeper (cavity) wounds are often associated with relatively high levels of exudate as are wounds located on the lower part of the leg levels. There are many underlying pathologies associated with increased exudate production, e.g. infection (local and systemic) and biofilm presence, oedema, obesity, and endocrine disease. Conversely, ischaemia of the wound location and dehydration (systemic) are associated with decreased exudate production[1].

Table 1. Problems associated with excessive and insufficient exudate production[1]

Excessive exudate	Insufficient exudate
Delayed wound healing	Delayed autolytic debridement
Wound expansion	Delayed wound healing
Peri-wound damage (e.g. maceration)	Adherence of dressings to wound bed, leading to trauma and pain during dressing removal
Leakage and soiling of clothes / bedlinen	
Malodour	
Frequent dressing changes	
Psychosocial effects	

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Introduction

Dressings

Dressings play a pivotal role in the management of exudate, i.e. by absorbing excess exudate and/or allowing moisture to evaporate from their surfaces, while maintaining a moist wound environment. Additionally, some dressings facilitate autolytic debridement and others are designed to modulate levels of inflammatory mediators and proteolytic enzymes.

Exufiber® is a sterile, soft, non-woven gelling fibre dressing, available in pad and ribbon forms. Its tightly entwined highly absorbent polyvinyl alcohol (PVA) fibres (Hydrolock® technology) minimise the available free space for exudate or blood to flow which, in turn, boosts the integrity of the dressing. On contact with exudate, Exufiber transforms into a gel that facilitates moist wound healing. The moist environment promotes autolytic debridement and a favourable environment for healing[5,6,7]. It is designed to be of use in the management of superficial and deep (cavity) wounds, i.e. leg and foot ulcers, pressure ulcers, partial-thickness burns, surgical wounds, donor sites, and malignant wounds.

When managing complex wounds, there are a number of key principles that dictate which wound treatments should be applied, these relate to the management of wound exudate, the management of wound bioburden and the management of sloughy and/or necrotic tissue. Gelling fibre dressings such as Exufiber have a role to play in the management of exudate by absorbing, retaining and transferring exudate to secondary dressings in order to provide optimal moisture levels at the wound bed. Exufiber can also help to support wound debridement through autolysis by providing a moist wound healing environment characterised by the soft gel which forms on contact with wound exudate when the product is applied.

Case studies

The following pages of this compendium feature a series of case study reports that refer to the use of Exufiber on complex wounds. A case study is typically a narrative which highlights the diagnosis, treatment and outcomes of a single observed case. In wound care, case studies are a useful means of illustrating clinical challenges and sharing 'real-life' experiences and, as such, are much valued as educational tools[8].

The reports are based on information kindly provided by clinicians across the world and help to illustrate some of the challenges faced by those involved in the management of patients with complex wounds and how Exufiber, in conjunction with other interventions, can contribute toward effective exudate management and successful clinical outcomes.

This compendium has been compiled by Mölnlycke®'s Global Medical Affairs and Safety Department of Mölnlycke Health Care in order to share real life clinical experiences of using Exufiber®. The views expressed in the case reports reflect the knowledge and experience of the health care professionals who have kindly provided the notes and photographs. Although Mölnlycke has taken great care to ensure accuracy of the case reports, it will not be liable for any errors of omission or accuracy in this compendium. Any products referred to should be used according to the instructions for use supplied with them.

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Venous leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 69-year old female presented at the clinic with a venous leg ulcer (VLU). The patient had a current medical history of type II diabetes, arterial hypertension, asthma, hypothyroidism, chronic back pain, and depression with insomnia. Past medical history included hemorrhagic stroke and deep vein thrombosis. The patient was taking multiple concomitant medications including antihypertensives, opioids, antidepressants, anticoagulants, and agents for hypoglycaemia.

The patient's surgical history included orthopaedic (arthroprosthesis) and gynecological interventions (hysterectomy and laparotomic cystectomy).

The ulcer, located on the outside of the left ankle, measured 27cm^2. The ulcer had been present for 8 weeks. Ankle-brachial pressure index (ABPI) of 1.23. The wound bed was composed of 15% slough/fibrin and 85% granulation tissue. There were no clinical signs of wound infection. Exudate levels were high and serous in nature. The peri-wound skin was healthy and intact. Compression therapy was used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended eight follow-up visits over a 16-week period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated.

Follow-up assessments

Over the treatment period, the size of the wound steadily decreased; at the fourth and fifth follow-up assessments the wound measured 11cm^2 (59% reduction) and 5cm^2 (80% reduction), respectively.The condition of the wound bed tissue improved over the treatment period. Clinical signs of local wound were absent throughout the study.

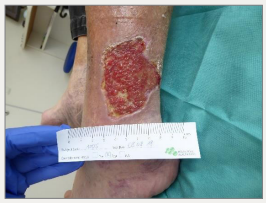
After eight days of treatment with Exufiber, the level of wound exudate reduced to moderate. Exudation was unchanged until the seventh follow-up assessment (day 84), when levels were recorded as low and purulent.

The peri-wound skin was healthy and intact, except at the third, fifth and seventh follow-up visits when mild redness was recorded.

Clinical outcome

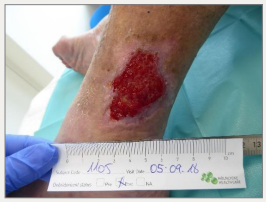
At the final evaluation, the wound had healed.

Start of evaluation (day 1)



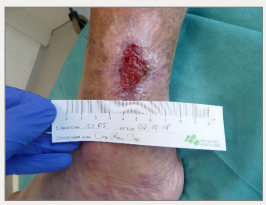
An 8-week old VLU with high levels of serous exudate. The peri-wound skin was healthy and intact.

Fourth follow-up visit (day 28)



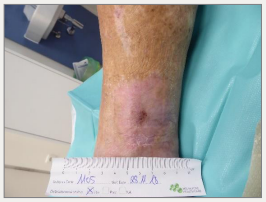
After 28 days of treatment with Exufiber, the wound measured 11cm^2, a 59% reduction in wound area. Wound exudate levels had decreased to moderate; the peri-wound skin remained healthy and intact.

Sixth follow-up visit (day 55)



After 55 days of treatment with Exufiber, the wound size had continued to reduce, and the peri-wound skin remained healthy and intact. Wound exudation was unchanged.

End of evaluation (day 112)



At the final evaluation, the wound had healed.

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Leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (Clinical Trials.gov identifier: NCT02921750

Patient/wound history

A 63-year old male presented at the clinic with a leg ulcer. The patient had a current medical history of obesity and benign prostatic hyperplasia (medication prescribed). Past medical history included gonarthrosis and prolapsed disc.

The ulcer, located on the on the right inner ankle, measured 1.76cm^2. It was critically colonised with Staphylococcus aureus and Escherichia coli. The ulcer had been present for 10 weeks. The wound bed was composed of 20% granulation tissue and 80% slough/fibrin. There were no clinical signs of wound infection. Exudate levels were moderate and serous in nature. The peri-wound skin was healthy and intact. Compression therapy was not used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended six follow-up visits over a 67-day period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated.

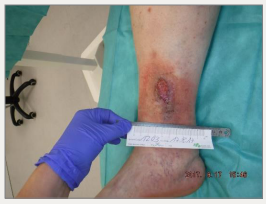
Follow-up assessments

Over the treatment period, the size of the wound steadily reduced. At the third (day 26) and fourth (day 39) follow-up visits, the wound measured 1.61cm^2 (9.2% reduction) and 0.6cm^2 (66% reduction), respectively. The condition of the wound bed tissue steadily improved over the treatment period. Clinical signs of local wound infection were absent throughout. At the first follow-up visit and until the fifth follow-up visit (week 8), wound exudation was low but serosanguinous in nature; thereafter wound exudate was absent. Moderate to mild redness of the peri-wound skin was recorded at the initial three follow-up visits, but thereafter the peri-wound skin was healthy and intact.

Clinical outcome

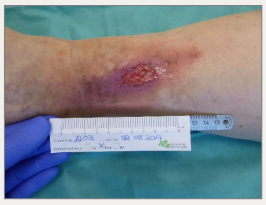
At the final evaluation, the wound had healed

Start of evaluation (day 1)



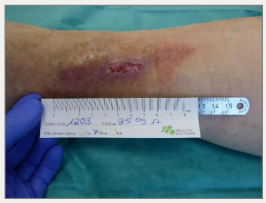
A 10-week old leg ulcer with moderate levels of serous exudate. The peri-wound skin was healthy and intact.

First follow-up visit (day 5)



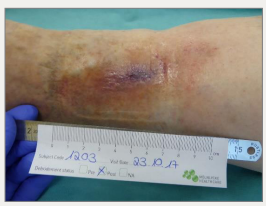
After five days of treatment with Exufiber, the wound bed was composed of 50% granulation tissue, 10% epithelialised tissue and 40% slough/fibrin. Moderate redness of the peri-wound skin was recorded.

Fourth follow-up visit (day 39)



After 39 days of treatment with Exufiber, the wound measured 0.6cm^2, a 66% reduction in wound area. The peri-wound skin was healthy and intact.

End of evaluation (day 42)



At the final evaluation, the wound had healed.

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Venous leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 58-year old female presented at the clinic with a venous leg ulcer (VLU). The patient had a current medical history of cortical visual impairment (CVI) and was receiving anticoagulant medication. The patient's surgical history included a tension-free vaginal tape (TVT) sling for stress urinary incontinence.

The VLU, located on the on the right lower leg, measured 7.28cm^2. The ulcer had been present for 11 months. Ankle-brachial pressure index (ABPI) of 0.92 The wound bed was composed of 67% granulation tissue and 33% slough/fibrin. There were no clinical signs of wound infection. Exudate levels were moderate and serous in nature. Moderate redness and blistering, and mild maceration of the peri-wound skin were recorded. Compression therapy was used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended six follow-up visits over a 53-day period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated..

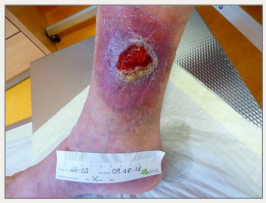
Follow-up assessments

Over the treatment period, the size of the wound substantially reduced. At the fourth (day 26) and fifth (day 40) follow-up visits, the wound measured 0.86cm^2 (88% reduction) and 0.19cm^2 (97% reduction), respectively. Over the study period, the condition of the wound bed tissue improved. After 6 weeks of treatment with Exufiber, 100% of the wound bed was covered with eschar. Clinical signs of local wound infection were absent throughout. After 5 days of treatment with Exufiber, low levels of serous wound exudate were recorded. At the fourth follow-up visit (day 26) exudation had increased to moderate, but thereafter was absent. From the third follow-up visit (day 20), the condition of the peri-wound skin began to steadily improve

Clinical outcome

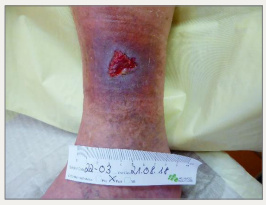
At the final evaluation, the wound had healed.

Start of evaluation (day 1)



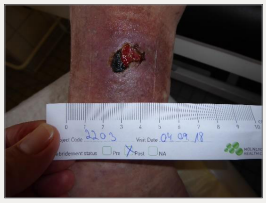
An 11-month old venous leg ulcer with moderate levels of serous wound exudate. The peri-wound skin exhibited mild maceration, with moderate redness and blistering.

Second follow-up visit (day 12)



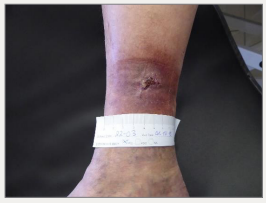
After 12 days of treatment with Exufiber, the wound bed was composed of 65% granulation tissue, 30% epithelialised tissue and 5% slough/fibrin. The condition of the peri-wound skin was unchanged.

Fourth follow-up visit (day 26)



After 26 days of treatment with Exufiber, the wound measured 0.86cm^2, an 88% reduction in wound area. Mild redness of the peri-wound skin remained.

End of evaluation (day 53)



At the final evaluation, the wound had healed.

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Venous leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 70-year old male presented at the clinic with a venous leg ulcer (VLU). The patient had a current medical history of arterial hypertension (multiple concomitant medications prescribed). The patient's surgical history included two split skin grafts and venous surgical procedures (crossectomy and saphenectomy).

The ulcer, located on the inner right ankle, measured 2.93cm^2. The ulcer had been present for 6 weeks. Ankle-brachial pressure index (ABPI) of 0.91 The wound bed was composed of 80% slough/fibrin and 20% granulation tissue. There were no clinical signs of wound infection. Exudate levels were moderate and serous in nature. Mild maceration and moderate redness of the peri-wound skin were recorded. Compression therapy was used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended five follow-up visits over a 6-week period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated.

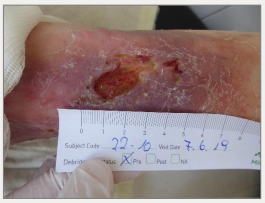
Follow-up

Over the treatment period, the size of the wound steadily decreased; at the fourth follow-up assessment the wound measured 0.37cm^2, an 87% reduction of wound area. The condition of the wound bed tissue slowly improved over the treatment period. Clinical signs of local wound were absent throughout the study. After seven days of treatment with Exufiber, the level of serous wound exudate was low. Thereafter, exudation was unchanged until the final visit when wound exudate was absent. At the initial follow-up visit, mild redness and moderate blistering of the peri-wound skin was recorded. At the subsequent follow-up visits, mild redness persisted, but at the final study evaluation the peri-wound skin was healthy and intact.

Clinical outcome

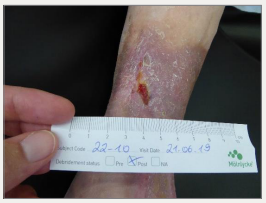
At the final evaluation, the wound had healed.

Start of evaluation (day 1)



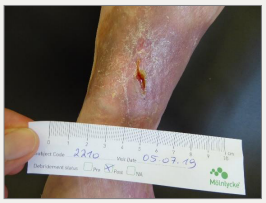
A 6-week old VLU with moderate levels of serous wound exudate. The peri-wound skin exhibited moderate redness and mild maceration.

Second follow-up visit (day 14)



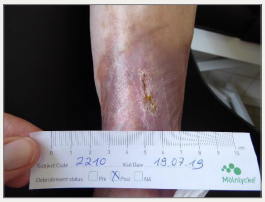
After 14 days of treatment with Exufiber, wound exudation levels were reduced to low. Redness of the peri-wound skin remained.

Fourth follow-up visit (day 28)



After 28days of treatment with Exufiber, the wound measured 0.37cm^2, representing an 87% reduction in wound area. The condition of the wound bed tissue was improved, with 20% slough/fibrin, 60% granulation tissue and 20% epithelialised tissue.

End of evaluation (day 42)



At the final evaluation, the wound had healed.

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Venous leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 71-year old female presented at the clinic with a venous leg ulcer (VLU). The patient had a current medical history of arterial hypertension, hypothyroidism, and a tremor (multiple concomitant medications prescribed). No surgical history was reported.

The ulcer, located on the left lower leg, measured 1.78cm^2. The ulcer had been present for seven months. Ankle-brachial pressure index (ABPI) of 1.0. The wound bed was composed of 50% slough/fibrin and 50% granulation tissue. There were no clinical signs of wound infection. Exudate levels were moderate and serous in nature. Moderate redness of the peri-wound skin was recorded. Compression therapy was used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended eight follow-up visits over a 16-week period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated.

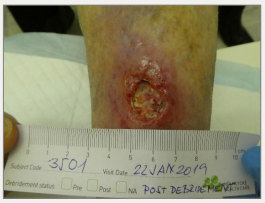
Follow-up

After four weeks of treatment with Exufiber, the size of the wound had increased by 7% to 2.05cm^2, but after a further two weeks of treatment the wound area had reduced to 1.65cm^2, representing a 7% reduction of the original wound area. The condition of the wound bed tissue slowly improved over the treatment period. Clinical signs of local wound were absent throughout the study. After seven days of treatment with Exufiber, the level of wound exudate increased, but thereafter exudation levels were reduced. At the sixth follow-up visit (day 56) wound exudate was absent. At the initial follow-up visit, mild redness and mild maceration of the peri-wound skin was recorded. Mild redness persisted at the second follow-up assessment but thereafter the peri-wound skin was healthy and intact.

Clinical outcome

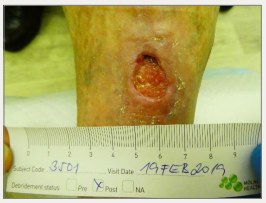
At the final evaluation, the wound had healed.

Start of evaluation (day 1)



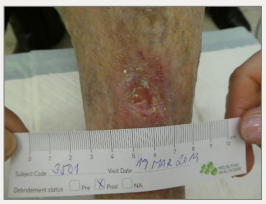
A 7-month old VLU with moderate levels of serous wound exudate. The peri-wound skin exhibited moderate redness.

Fourth follow-up visit (day 28)



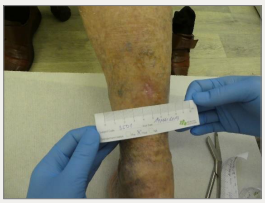
After 28 days of treatment with Exufiber, the wound measured 2.05cm^2, representing a 15% increase in wound area, but the wound exudate level was low, and the peri-wound skin was healthy and intact.

Sixth follow-up visit (day 56)



After 56-days of treatment with Exufiber, the condition of the wound bed tissue was improved. The peri-wound skin remained healthy and intact and exudation was absent.

End of evaluation (day 112)



At the final evaluation, the wound had healed.

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Leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 74-year old female presented at the clinic with a leg ulcer. The patient had a current medical history of hypertension, depression and uveitis) (multiple concomitant medications prescribed). No surgical history was reported.

The ulcer, located on the right lower leg, measured 0.71cm^2. The ulcer had been present for eight months. Ankle brachial pressure index (ABPI) of 0.9. The wound bed was composed of 70% slough/fibrin and 30% granulation tissue. Several clinical signs of local wound infection were recorded (moderate pain between dressing change, severe skin erythema, severe malodour, and moderate-to-high exudation). Exudate levels were moderate and serous in nature. The peri-wound skin exhibited moderate levels of redness, maceration and trauma to the wound edges, together with mild blistering. Compression therapy was not used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended five follow-up visits over a 6-week period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated.

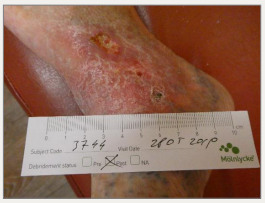
Follow-up

The size of the wound steadily reduced, and after four weeks of treatment with Exufiber, the size of the wound had decreased by 64% to 0.25cm^2, At the final study evaluation (day 42). The condition of the wound bed tissue slowly improved over the treatment period. The clinical signs of local wound infection slowly subsided. At the fourth follow-up visit, only pain between dressing change (severe) and erythema (moderate) remained. At the final evaluation, no signs of infection were present. At the initial three follow-up visits, wound exudate levels were low and alternated between serosanguinous or serous in nature. Thereafter wound exudation was absent. At the initial follow-up visit, the peri-wound skin exhibited severe redness, with moderate maceration and blistering, plus mild trauma to the wound edges. Thereafter, the peri-wound skin was healthy and intact

Clinical outcome

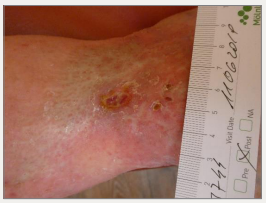
At the final evaluation, the wound had healed.

Start of evaluation (day 1)



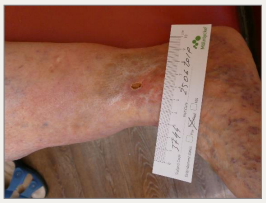
An 8-month old leg ulcer with moderate levels of serous wound exudate. The peri-wound skin exhibited moderate redness, maceration and trauma to the wound edges, plus mild blistering.

Second follow-up visit (day 14)



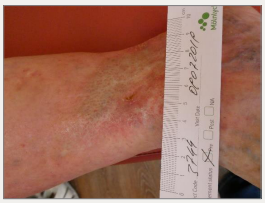
After 14 days of treatment with Exufiber, the peri-wound skin was healthy and intact, and serous wound exudate levels were low. Local wound infection had improved.

Fourth follow-up visit (day 28)



After 28 days of treatment with Exufiber, the wound measured 0.25cm^2, representing a 64% decrease in wound area. The peri-wound skin was healthy and intact, and wound exudation was absent.

End of evaluation (day 42)



At the final evaluation, the wound had healed.

Mölnlycke®

Leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 79-year old female presented at the clinic with a leg ulcer. The patient had a current medical history of hypertension, and complications resulting from myocardial infarction (concomitant medications prescribed). The patient had previously undergone gallbladder surgery.

The ulcer, located on the left lower leg, measured 1.63cm^2. The ulcer had been present for four months. Ankle-brachial pressure index (ABPI) of 0.9. The wound bed was composed of 50% slough/fibrin, 30% granulation tissue and 20% epithelialised tissue. Several clinical signs of local wound infection were recorded (severe pain between dressing change, moderate skin erythema, mild oedema and moderately high exudation). Exudate levels were moderate and were serous in nature. The peri-wound skin exhibited moderate levels of redness, severe maceration, mild blistering and skin stripping, with moderate trauma to the wound edges. Compression therapy was not used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended two follow-up visits over a 2-week period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated.

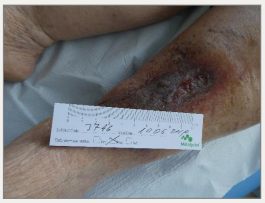
Follow-up

After just two weeks of treatment with Exufiber, the wound had healed. After eight days of treatment, a significant improvement in the condition of the wound bed tissue was recorded (90% epithelialised tissue and 10% slough/fibrin). At the first follow-up visit, clinical signs of local wound infection had decreased (moderate pain between dressing change and mild erythema remained), and at the final evaluation the wound was free of all signs of infection. After just eight days of treatment with Exufiber, wound exudation was absent. At the initial follow-up visit, the peri-wound skin remained unhealthy with moderate redness, severe maceration and blistering, plus moderate trauma to the wound edges. At the final evaluation, the peri-wound skin was healthy and intact.

Clinical outcome

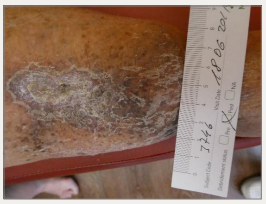
At the final evaluation, the wound had healed and the peri-wound skin was healthy and intact

Start of evaluation (day 1)



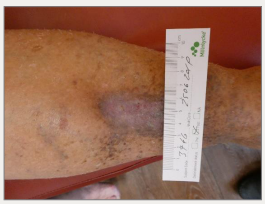
A 4-month old leg ulcer with moderate levels of serous wound exudate. The peri-wound skin exhibited moderate redness, severe maceration, mild blistering, and mild skin stripping, with moderate trauma to the wound edges.

First follow-up visit (day 8)



After eight days of treatment with Exufiber 90% of the wound bed was epithelialised. Wound exudation was absent, and the signs of local wound infection had decreased. The condition of the peri-wound skin was unchanged.

End of evaluation (day 15)



At the final evaluation, the wound was healed, and the peri-wound skin was healthy and intact.

Mölnlycke®

Leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 73-year old male presented at the clinic with a leg ulcer. The patient had a current medical history of hypertension (medication prescribed). The patient had no surgical history..

The ulcer, located on the right lower leg, measured 6.04cm^2. The ulcer had been present for four months. Ankle-brachial pressure index (ABPI) of 1.1. The wound bed was composed of 20% slough/fibrin, 10% granulation tissue, 40% epithelialised tissue and 30% clotted blood. Several clinical signs of local wound infection were recorded (severe pain between dressing change, moderate skin erythema, and moderately high wound exudation). Exudate levels were moderate and were serosanguinous in nature. The peri-wound skin exhibited severe maceration and blistering, moderate skin stripping, and severe trauma to the wound edges. Compression therapy was not used prior to enrollment.

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended four follow-up visits over a 4-week period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated.

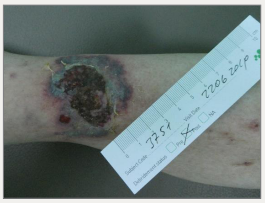
Follow-up

Over the study period, the size of the wound steadily reduced, and at the final follow-up visit the wound was healed. The condition of the wound bed tissue slowly improved during the treatment period. At the third follow-up visit (day 21), 100% of the wound bed was covered with scab. Clinical signs of local wound infection remained (mild/moderate pain between dressing change and mild erythema) until the fourth follow-up visit (day 28) when all signs were absent. At the initial follow-up visit (day 7) wound exudate was low and serous in nature. Thereafter, wound exudation was absent. Over the initial 14 days of treatment with Exufiber, the peri-wound skin remained unhealthy with mild to moderate redness, moderate to severe maceration and severe blistering, plus moderate trauma to the wound edges. At the third follow-up visit and thereafter, the peri-wound skin was healthy and intact.

Clinical outcome

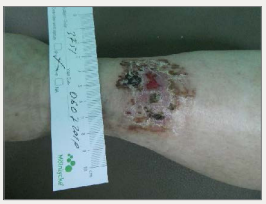
At the final evaluation, the wound had healed, and the peri-wound skin was healthy and intact.

Start of evaluation (day 1)



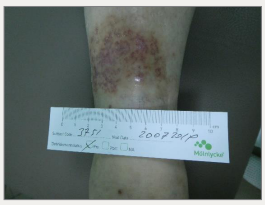
A 4-month old leg ulcer with moderate levels of serosanguinous wound exudate. The peri-wound skin exhibited severe maceration and blistering, moderate skin stripping, and severe trauma to the wound edges.

Second follow-up visit (day 14)



After 14 days of treatment with Exufiber, wound exudation was absent, and the clinical signs of local wound infection had decreased.

End of evaluation (day 28)



At the final evaluation, the wound was healed, and the peri-wound skin was healthy and intact.

Mölnlycke®

Venous leg ulcer

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs taken from a Mölnlycke-sponsored clinical investigation (ClinicalTrials.gov identifier: NCT02921750)

Patient/wound history

A 74-year old male presented at the clinic with a venous leg ulcer (VLU). The patient had a current medical history of chronic venous insufficiency (medication prescribed). There was no surgical history.

The ulcer, located on the on the left lower leg, measured 17.2cm^2. The ulcer had been present for five months. Ankle-brachial pressure index (ABPI) of 1.0. The wound bed was composed of 80% granulation tissue and 20% slough/fibrin. There were no clinical signs of wound infection. Exudate levels were moderate and serosanguinous in nature. The peri-wound skin exhibited moderate signs of redness with mild skin stripping and trauma to the wound edges. Compression therapy was used prior to enrollment..

Treatment regime

The ulcer was treated with Exufiber® and compression therapy. The patient attended five follow-up visits over a 6-week period. At the follow-up visits, the dressing was changed. Dressing changes were performed according to local clinical practice or when the dressing became saturated..

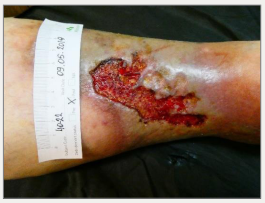
Follow-up

Over the treatment period, the size of the wound steadily reduced. At the fourth follow-up visit the wound had reduced by 91%, to 1.5cm^2, and after a further two weeks it had almost healed. The condition of the wound bed tissue improved over the treatment period, and at the final visit was composed of 100% epithelialised tissue. Clinical signs of local wound infection were absent throughout. Wound exudate remained moderate and serosanguinous in nature at each of the follow-up assessments, until the final evaluation when exudation was absent. Mild redness of the peri-wound skin was recorded during the study assessments, but at the final evaluation the peri-wound skin was healthy and intact.

Clinical outcome

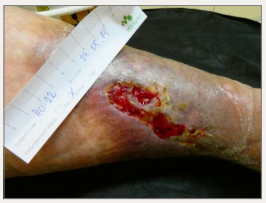
At the final evaluation, the wound had healed and was covered with 100% epithelialised tissue.

Start of evaluation (day 1)



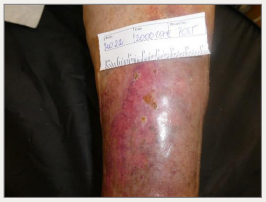
A 5-month old VLU with moderate levels of serosanguinous wound exudate. The peri-wound skin exhibited moderate redness, with mild skin stripping and trauma to the wound edge.

Second follow-up visit (day 14)



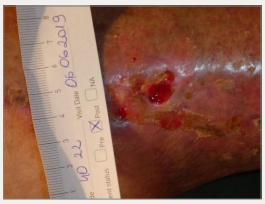
After 14 days of treatment with Exufiber, the wound bed was composed of 95% granulation tissue and 5% slough/fibrin.

Fourth follow-up visit (day 28)



After 28 days of treatment with Exufiber, the wound measured 1.5cm^2, a 91% reduction in wound area.

End of evaluation (day 42)



At the final evaluation, the wound was covered with 100% epithelialised tissue. The peri-wound skin was healthy and intact.

Mölnlycke®

Abscess using Exufiber®, Mepilex® Border Flex and Granulox®

This case study report has been prepared by Mölnlycke's Global Medical Affairs and Safety team, based on information and photographs kindly supplied by Paulo Alves (Wounds Research Laboratory, Centre for Interdisciplinary Research in Health (CIIS), Universidade Catolica Portuguesa, Oporto, Portugal) and João Castro (Chief Nurse/Technical Director Multivaze, Wecare Saude, Unidade de Cuidados Continuados Integrados e Paliativos, Póvoa de Varzim, Portugal) whom have also confirmed and given Mölnlycke permission to distribute this report.

Mepilex® Border Flex is an all-in-one self-adherent soft silicone coated foam dressing for use on a wide range of exuding wounds. Its design incorporates proprietary Flex Technology which contributes to the excellent flexibility and conformability of the dressing. Together with its excellent fluid handling, these properties all contribute to the wear time of the dressing.

Granulox® is a topical haemoglobin spray for use on a wide range of wounds. When released, the highly purified haemoglobin binds with oxygen from the environment and diffuses through the wound exudate, supplying the wound base with oxygen to support healing.

Patient/wound history

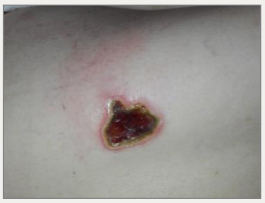
An 85-year old female presented with a one-week old abscess. The patient had a current medical history of cerebrovascular accident, dementia and hypertension. Dependent on high degree of activities of daily living. Receiving enteral nutrition via nasogastric tube..

The ulcer, located on the right thigh, measured 20.36 cm^2 (5.2 cm length and 4.3 cm width) with a depth of 5 cm after debridement. The ulcer appeared as an abscess following the intramuscular administration of an anti-inflammatory agent. The wound was initially covered with dry eschar tissue (sloughy tissue was observed at subsequent visits). Exuberant signs of inflammation were observed (swelling, redness, pain, raised peri-wound temperature. There was no exudation prior to surgical debridement. After eschar removal, moderate levels of viscous exudate, without odour, were observed.

Treatment regime

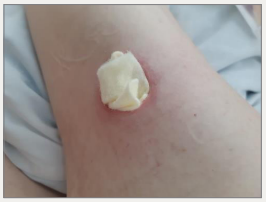
To manage the exudation and assist with wound bed preparation, Exufiber® was applied, with Mepilex® Border Flex used as a secondary dressing. The dressings conformed to the shape of the body. After 10 days, Granulox® was applied to the debrided wound, prior to the application of the dressings. Dressing changes were initially undertaken every three days for two weeks until major growth of the granulation tissue was observed. Subsequently, dressings were changed once weekly.

Start of evaluation (day 1)



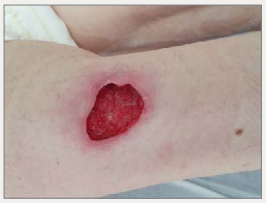
1-week old abscess

Follow-up visit (day 4)



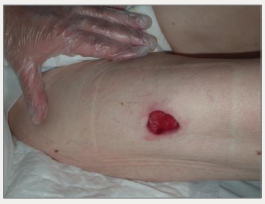
Exufiber in situ in the wound cavity

Follow-up visit (day 10)



Clean wound bed covered with healthy granulation tissue

Follow-up visit (day 23)



Ulcer depth reduced to 4 cm

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Case study 10

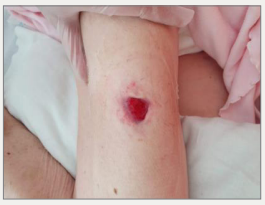
Follow-up

Over the treatment period, the ulcer area and depth steadily decreased. The condition of the wound bed tissue steadily improved, with 100% granulation tissue present. No clinical signs of local wound infection were observed. Wound exudation reduced from moderate to low levels. The peri-wound skin remained dry without maceration, despite the high levels of exudation at the outset. Pain during treatment was present at the start of the evaluation period but started to decrease in the early stages of follow-up. Dressing change-related pain was reported as low-to-none.

Clinical outcome

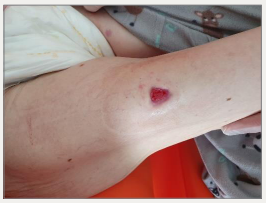
At the final evaluation, the wound had healed. The clinicians commented that Exufiber® could be easily removed intact and facilitated autolytic debridement due to good exudate management..

Follow-up visit (day 63)



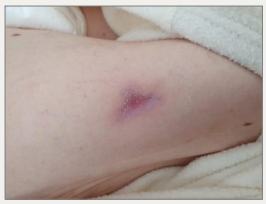
Ulcer depth reduced to 1 cm

Follow-up visit (day 74)



Wound depth significantly reduced in size, wound edges epithelialising and contracting. and peri-wound skin healthy and intact.

End of evaluation (day 103)



Ulcer healed

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References: 1. World Union of Wound Healing Societies (WUWHS). Principles of best practice: wound exudate and the role of dressings. A consensus document. Medical Education Partnership, London, United Kingdom, 2007. 2. Schultz, G., Mozingo, M., Romanelli, M., Claxton, K. Wound healing and TIME; new concepts and scientific applications. Wound Repair and Regeneration 2005 https://doi.org/10.1111/j.1067-1927.2005.130451.x. 3. Menon, J. Managing exudate associated with venous leg ulceration. British Journal of Community Nursing 2012;17(6 Supplement):S6-S10. 4. Newton, H. Leg ulcers: differences between venous and arterial. Wound Essentials 2011;6:20-28. 5. Smet, S., Beele, H., Saine, L., Suys, E., Henrickx, B. Open, non-comparative, multi-centre post market clinical follow-up investigation to evaluate performance and safety on pressure ulcers when using a gelling fibre dressing as intended. Poster Presentation at European Pressure Ulcer Advisory Panel Conference, 2015, Ghent, Belgium. 6. Mölnlycke Health Care. Data on file. (2019). 7. Mölnlycke Health Care. Data on file. (2020). 8. Morris, C. Writing a wound care case study. Wounds UK 2015;11(1):61-64.

Find out more at www.molnlycke.com

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