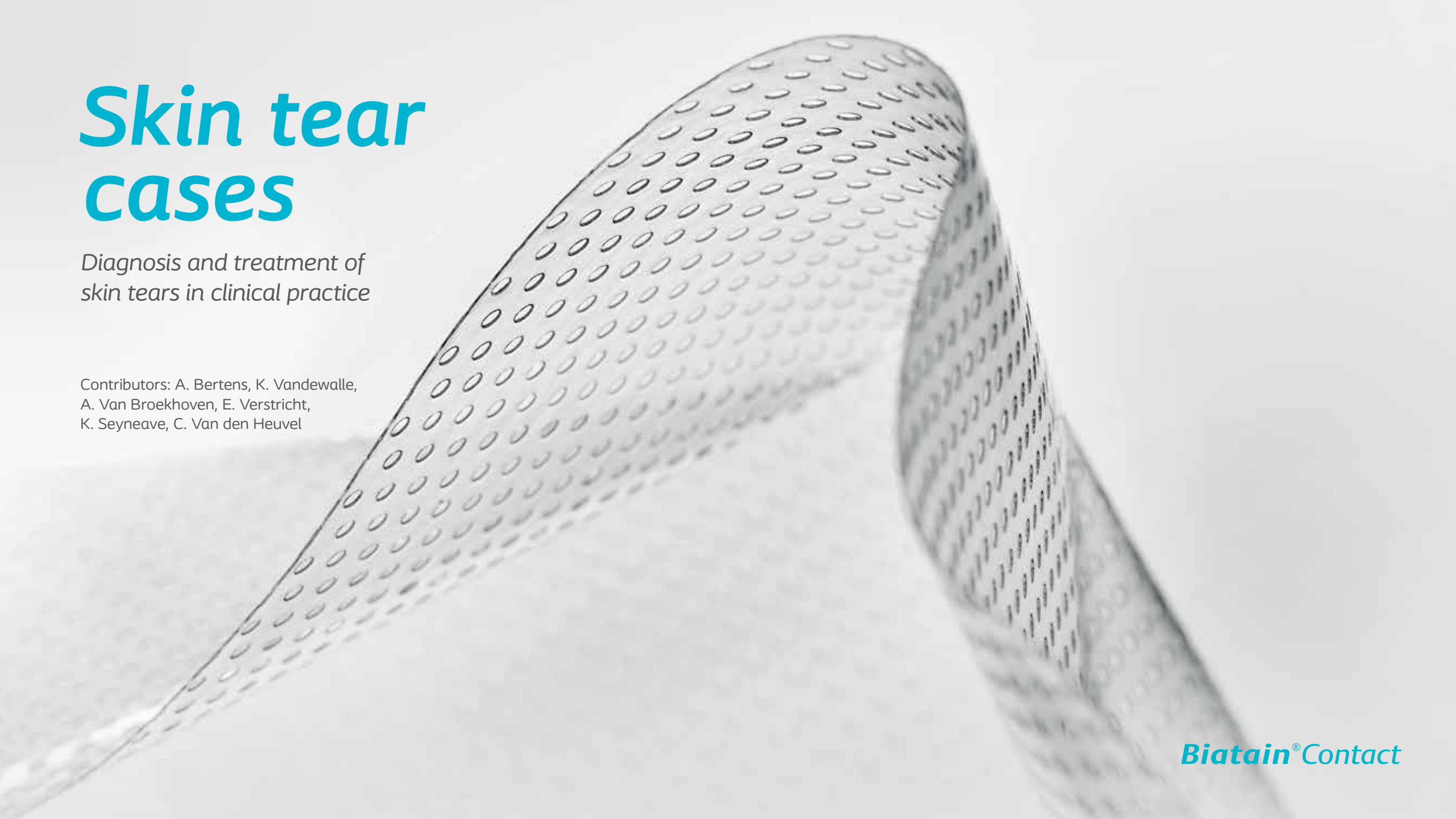


Skin tear cases

Diagnosis and treatment of skin tears in clinical practice

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Biatain® Contact



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Introduction

“A skin tear is a traumatic wound caused by mechanical forces, including removal of adhesives. Severity may vary by depth (not extending through the subcutaneous layer).”¹

The updated 2018 ISTAP definition

Skin tears occur across varied patient groups, but patients with aged and fragile skin are at increased risk of skin tears. Skin tears can occur on any anatomical site and are particularly common on the extremities.² They can be painful wounds, affecting quality of life and causing distress to the patient.

Skin tears are traumatic wounds that may result from a variety of mechanical forces such as shearing or frictional forces, including blunt trauma, falls, poor handling, equipment injury, or removal of adherent dressings.¹

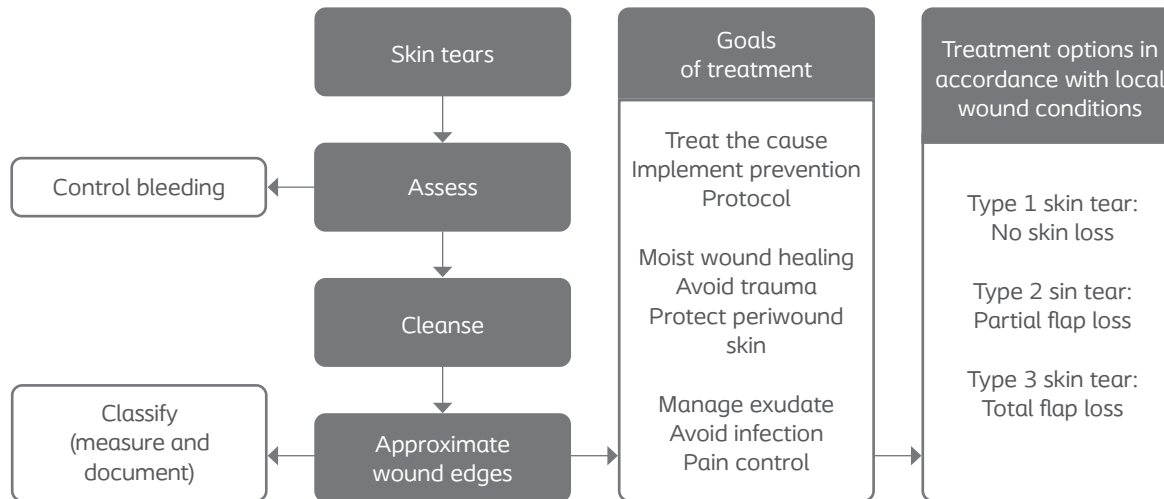
The frequency and prevalence of skin tears, and thus the economic and patient burden, is believed to be under-reported. Their prevalence differ around the world and across care areas, but there is strong evidence to suggest that they occur more frequently than pressure injuries.³

Based on the severity of skin flap* loss, ISTAP has established a simple method to classify skin tears.¹

- 1 Type 1 skin tear:** No skin loss
Linear or flap tear where the skin flap can be repositioned to cover the wound bed.
- 2 Type 2 skin tear:** Partial flap loss
The skin flap cannot be repositioned to cover the whole wound bed.
- 3 Type 3 skin tear:** Total flap loss
Total skin flap loss that exposes the entire wound bed.

Treatment recommendations

Skin tears are acute wounds that should typically proceed to closure in a timely fashion and follow an acute wound closure trajectory of 14–21 days. The processes for treating skin tears should, according to LeBlanc et al (2013)⁴ follow the following process:



Wound care products for fragile skin

Although skin tears are preventable, it is vital that the wound care products chosen will optimize wound healing and not increase the risk of further skin damage when they occur. This should include specialist dressings and products to cleanse and moisturise the skin while protecting the fragility of the skin.

The ideal dressing for managing skin tears should:⁵

- Control bleeding
- Be easy to apply and remove
- Not cause trauma on removal
- Provide a protective anti-shear barrier
- Optimise the physiological healing environment (e.g. moisture, bacterial balance, temperature, pH)
- Be flexible and mould to contours
- Provide secure, but not aggressive, retention
- Afford extended wear time
- Optimise quality of life and cosmetic factors
- Be non-toxic
- Be cost-effective

Type 1 skin tears

Linear or flap tear where the skin flap can be repositioned to cover the wound bed.

Case 1

by A. Bertens
Home Care
Belgium



Patient

The patient is an elderly man. He is married and well-supported. He has a history of alcohol abuse that has negatively impacted his cognitive skills and thereby increased his risk of falling. The patient has diabetes which is under control. The patient is admitted to the hospital after taking a fall.



Wound assessment

A skin tear type 1 is found on his right hand. The cause is unknown. The wound bed shows low levels of exudate.



Management goals

- Manage exudate at the wound bed
- Protect granulation/epithelial tissue at wound bed and wound edge
- Protect the periwound skin



Treatment

At initial visit to the hospital, the skin tear is treated with Biatain® Silicone Lite. The next day, it is assessed and treated by home care. At this first assessment, the wound is cleaned with NaCl 0.9% to remove the dried blood. The flap is rehydrated and repositioned carefully. Biatain® Contact is applied to protect the flap, wound and surrounding skin. Gauze is used as secondary dressing due to the low level of exudate. At day 3, the secondary dressing is changed, with no signs of inflammation and no complains. At day 7, both Biatain Contact and secondary dressing are changed.

Result

At day 17, the skin tear is healed and Biatain contact is removed without trauma to the skin.

Treatment conclusion

- Biatain Contact was easy to apply and provided good wound monitoring for undisturbed healing.
- Biatain Contact stayed in place and could easily be removed without causing pain to the patient.
- The secondary dressing did not stick to the wound either.



Day 0



Day 4



Day 17

Case 2

by K. Vandewalle
Home Care
Belgium



Patient

The patient is a 92-year-old woman who lives on her own.



Wound assessment

The patient acquired a skin tear type 1 on her right arm caused by trauma. She is treated by a home care nurse.



Management goals

- Manage exudate at the wound bed
- Protect granulation/epithelial tissue at wound bed and wound edge
- Protect the periwound skin



Treatment

At the first assessment, the wound is rinsed with NaCl0.9% to remove the dried blood and rehydrate the flap. Hereafter the flap is carefully repositioned. Biatain® Contact is applied to fixate and protect the flap, wound and surrounding skin. Gauze is used as secondary dressing as only low levels of exudate are observed. A bandage is added for fixation. The secondary dressing is changed at intervals, whereas Biatain Contact is left in place for 7 days. The gauze does not stick and is easy to take off, resulting in less pain for the patient. Upon removal of the contact layer, no pain or trauma is observed.

Result

The flap stayed in place and healing progressed undisturbed. The wound healed in 13 days.

Treatment conclusion

- Biatain Contact was easy to apply and enabled good wound monitoring.
- The contact layer stayed in place and could be removed without pain or trauma to the patient.
- The few dressing changes were experienced as having a positive effect on patient comfort.



Day 0



Day 13

Case 3

by A. Van Broekhoven
Residentie Leopoldspark
Belgium



Patient

The patient is a 90-year-old woman. She suffers from multiple disease, including type 2 diabetes, Atrial Fibrillation, and Chronic Renal disease.



Wound assessment

The patient acquired a skin tear type 1 on left right arm caused by trauma.



Management goals

- Manage exudate at the wound bed
- Protect granulation/epithelial tissue at wound bed and wound edge
- Protect the periwound skin



Treatment

At the first assessment, the wound is gently cleansed with NaCl0.9% to remove the dried blood. Hereafter the flap is carefully repositioned. Biatain® Contact is applied to fixate and protect the flap, wound and surrounding skin. To promote moist wound healing, a hydrogel is applied on top of Biatain Contact and gauze is used as secondary dressing as only low levels of exudate are observed. A bandage is added for fixation.

Result

The flap stayed in place and healing progressed undisturbed. No dressing changes were needed as the wound healed within 7 days.

Treatment conclusion

- Biatain Contact was easy to apply and enabled undisturbed healing of the skin tear.
- The contact layer stayed in place and effectively protected and fixated the flap.
- The patient experienced good comfort with Biatain Contact.



Day 0



Day 7

Type 2 skin tears

The skin flap cannot be repositioned to cover the whole of the wound bed.

Case 1

by A. Van Broekhoven
Residentie Leopoldspark
Belgium



Patient

The patient is an 80-year-old woman in good health condition who lives in a nursing home. She suffers from Chronic Obstructive Pulmonary Disease (COPD) and has a skin tear on her lower right arm.



Wound assessment

The patient has a traumatic wound on the right arm sized 40x6x2 mm (length, width, depth), which is assessed as a skin tear type 2. The wound has granulation tissue and low levels of exudate. The wound edges are thickened and rolled, while the periwound skin is dry.



Management goals

- Manage exudate at the wound bed
- Rehydrate wound bed
- Protect granulation/epithelial tissue at wound bed and wound edge
- Protect the periwound skin



Treatment

At the first assessment, the wound is cleaned and the flap is repositioned as good as possible. The flap is fixated and protected using Biatain® Contact. A hydrogel is added for moist healing and a secondary dressing is applied.

Result

After three days, the secondary dressing is changed without causing pain or discomfort to the patient. Biatain contact is changed every 7th day. At day 16, the skin tear healed completely.

Treatment conclusion

- Biatain Contact was easy to apply and provided good wound monitoring and undisturbed healing. It stayed in place and could be removed without discomfort to the patient.
- It was easy to apply hydrogel on top of Biatain Contact



Day 0



Day 0 - After repositioning



Day 16 - Wound healed

Case 2

by A. Bertens
Home Care
Belgium



Patient

The patient is an 87-year-old man. He has experienced many health issues during the last years with many hospitalizations. He is temporarily in a nursing home for rehabilitation.



Wound assessment

The patient fell into a cabinet and got a skin tear type 2 on his right arm sized 120x40x0.1 mm (length x width x depth). The wound shows moderate exudation and the periwound skin is dry.



Management goals

- Manage exudate at the wound bed
- Rehydrate wound bed and periwound skin
- Remove non-viable tissue around the wound edge
- Protect granulation/epithelial tissue at wound bed and wound edge and periwound skin



Treatment

At the first assessment, the wound is cleaned with NaCl 0.9%. The flap is rehydrated and repositioned carefully. Biatain® Contact is used to fixate and protect the flap, wound and surrounding skin. A hydrogel is used for exudate management and moist wound healing. Gauze is used as secondary dressing and bandage for fixation.

On day 1, all dressings are removed to check for residues from the antiseptic treatment. Similar dressing regimen is applied afterwards, i.e. Biatain Contact, flamineal, gauze, and bandage. Dressings are changed again on day 8 whereafter the same dressings are applied again.

On day 9, the wound shows some fibrin and slough. The pores of Biatain Contact remains open, which helps avoid exudate pooling. The wound is cleaned and a new contact layer, flamineal and gauze are applied. Healing is progressing as new epithelisation tissue is observed.

After 2 weeks, the wound was healed. As the new skin is fragile, a contact layer and later Biatain Silicone Lite are applied to protect it. The healing is fast with atraumatic dressing changes.

Result

Protecting and fixating the flap with Biatain® Contact ensured granulation and epithelisation. Exudate pooling was avoided. The wound healed completely in 15 days and was protected after healing securing the newly formed skin. .

Treatment conclusion

- Biatain Contact was easy to apply and enabled good wound monitoring.
- The pores allowed for easy exudate transfer, which helped avoid pooling in the wound.
- Dressing removal happened without pain or trauma to the patient.



Day 0



Day 1



Day 8



Day 15 - Wound healing



Day 20 - New skin protected

Case 3

by E. Verstricht
Home Care 'Hart voor zorg'
Belgium



Patient

The patient is a 91-year-old woman with low mobility.



Wound assessment

She has a skin tear type 2 on her right arm, distally, sized 80x30 mm (length x width).



Management goals

- Manage exudate at the wound bed
- Rehydrate wound bed
- Protect granulation/epithelial tissue at wound bed and wound edge
- Protect the periwound skin



Treatment

At the first assessment, the flap is repositioned, fixated and protected using Biatain® Contact. The skin is very fragile, so as few manipulations and dressing changes as possible is highly desirable to ensure undisturbed healing. A secondary dressing is applied. Biatain Contact is left in place for 7 days.

Result

Protection and fixation of the flap ensured granulation and epithelisation. Exudate pooling was avoided. The wound healed after 15 days.

Treatment conclusion

- Wound evaluation was possible with Biatain Contact in place.
- Biatain Contact was easily removed without causing pain or trauma to the patient.
- Biatain Contact was comfortable to wear.



Day 0



Day 1 - Wound with Biatain Contact



Day 8



Day 15 - Wound healed

Case 4

by K. Seyneave
Residentie Leopoldspark
Belgium



Patient

The patient is a 95-year-old woman. She is in a poor nutritional state, weighing only 38.1 kg, and has low mobility. She has diabetes and receives anticoagulants for ischemic cardiopathy. The patient is anxious about pain due to prior experiences of trauma.



Wound assessment

The patient has a skin tear type 2 on her right leg, exteriorly. The wound size is 40x12x2 mm (length x width x depth). It shows moderate levels of exudate and the periwound skin is dry.



Management goals

- Manage exudate at the wound bed
- Rehydrate wound bed
- Protect granulation/epithelial tissue at wound bed and wound edge
- Protect the periwound skin



Treatment

At the first assessment, the wound is cleaned with NaCl0.9%. The flap is rehydrated and repositioned carefully. Biatain® Contact is used to fixate and protect the flap, wound and surrounding skin. A hydrogel is used for exudate management and moist wound healing. Gauze is used as secondary dressing and bandage for fixation.

On day 1, all dressings are removed to check for residues from the antiseptic treatment. Similar dressing regimen is applied afterwards, i.e. Biatain Contact, flaminol, gauze, and

bandage. Dressings are changed again on day 8 whereafter the same dressings are applied again.

On day 9, the wound shows some fibrin and slough. The pores of Biatain Contact remains open, which helps avoid exudate pooling. The wound is cleaned and a new contact layer, flaminol and gauze are applied. Healing is progressing as new epithelisation tissue is observed.

After 2 weeks, the wound was healed. As the new skin is fragile, a contact layer and later Biatain Silicone Lite are applied to protect it. The healing is fast with atraumatic dressing changes.

Result

The chosen treatment successfully fixated and protected the flap. The wound healed timely in 22 days.

Treatment conclusion

- The wound was easily rinsed with Biatain Contact in place and did not cause any pain to the patient.
- Biatain Contact did not stick to the wound and no ingrowth occurred.
- Exudates transferred easily and Biatain Contact allowed an easy wound monitoring.



Day 0



Day 8 - Biatain Contact applied



Day 11 - Dressing change



Day 22

Type 3 skin tears

Total skin flap loss that exposes the entire wound bed.

Case 1

by C. Van den Heuvel
Home Care 'Hart voor zorg'
Belgium



Patient

The patient is an 84-year-old man with Alzheimer's disease. He is a smoker and has low mobility. After falling on a brick wall, he acquired a skin tear on his right elbow. His neighbour helped him after his fall by rinsing the wound and removing dead tissue using scissors. The patient was seen for wound assessment by home care the day after his fall.



Wound assessment

The patient has a skin tear type 3 with total flap loss. The wound bed shows granulation tissue, is bloody, and has moderate levels of exudate. The periwound skin is dry.



Management goals

- Manage exudate at the wound bed, wound edge and periwound skin
- Protect periwound skin and granulation/epithelial tissue at wound bed and wound edge
- Remove non-viable tissue from the wound bed
- Manage the bacterial burden at the wound bed
- Re-hydrate the wound bed



Treatment

At the first assessment, the wound is rinsed with NaCl 0.9%. Isobetadine (iodine) is used to manage the bacterial burden. Biatain® Contact is applied to protect the wound and leave it undisturbed. An absorbent dressing is applied as secondary dressing and is fixated with a bandage. After 3 days, the secondary dressing is removed and the wound

is rinsed with the contact layer in place. A bit of hydrogel is applied on top of the contact layer together with a secondary dressing. After 5 days, the contact layer is changed and a new Biatain Contact is applied. The secondary bandage sticks slightly, but can easily be removed without trauma after being wetted.

Result

The wound healed in 17 days.

Treatment conclusion

- Both wound rinsing, cleansing and removal of Biatain Contact was comfortable to the patient with no pain or trauma.
- Wound monitoring was possible with Biatain Contact in place and no ingrowth was experienced.
- The dressings stayed in place even with the movement of the elbow joint



Day 0



Day 1



Day 7



Day 17



Day 7 - Rinsing gently with Biatain® Contact in place



Day 7 - Applying Flaminal on top



Day 10



Day 17

Conclusion

Skin tears are a common yet overlooked type of wounds which now are receiving increased attention. The clear classification of skin tear type by the condition of the skin flap is key for selecting the right intervention and dressing.

Treating skin tears with a silicone contact layer (Biatain® Contact) and an absorbent secondary dressing has been observed to bring satisfactory results in the present cases with all cases healing in a timely fashion, following the wound closure trajectory of 14-21 days of acute wounds.

For all types of skin tears, Biatain Contact was easy to use. In cases with no or only partial flap loss, it allowed for fixation of the repositioned flap. In the case with total flap loss, Biatain Contact was comfortable to wear and led to no pain or trauma for the patient as no ingrowth occurred.

In many of the cases, the periwound skin was dry and/or fragile. This required attention to the number of dressing changes as well as an increased interest in using a contact layer where the wound could be cleansed with contact layer in place. Biatain Contact's transparent design enabled wound assessment without removal and in some of the cases, the wound was successfully cleansed with Biatain Contact in place. Overall, Biatain Contact stayed in place easily, even with the movement of the elbow joint.

In wounds where a hydrogel was needed, it could be easily applied and transferred efficiently through the contact layer to the wound bed. Similarly, the open pores of Biatain Contact allowed exudate to transfer easily through the contact layer.

Biatain Contact allowed for change of the secondary dressing without trauma to the wound bed. In cases where the secondary dressing stuck slightly to the contact layer, this was easily mitigated with the use of water, which made the secondary dressing come off.

Overall, the cases demonstrated that use of Biatain Contact may lead to less patient discomfort and pain for the patient during wound cleaning and at dressing change. Biatain Contact protects against ingrowth while effectively fixating the flap of the skin tear. When exudate occurs, it can transfer easily through Biatain Contact. Finally, as Biatain Contact can be left in place when the wound is cleaned and when the secondary dressing needs to be changed, it allows for undisturbed wound healing.

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