

# Retrospective case series: Prontosan® Wound Irrigation Solution and Askina® Calgitrol® Paste in the treatment of diabetic foot ulcers

CASE STUDIES SERIES 2024



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## Introduction

Wound infection and biofilms play a significant role in delayed wound healing and present challenges in their management (Bianchi et al, 2016). Infection is associated with delayed wound healing, increasing the risk of complications such as amputation, and has a deleterious impact on the patient's quality of life (Cutting, 2016; Armstrong et al, 2017). Chronic or non-healing wounds also impose substantial financial burdens on healthcare systems.

Effective management of bioburden in wounds is essential for successful wound healing. However, it is estimated that biofilm is present in 60-100% of non-healing wounds (World Union of Wound Healing Societies, 2016). Cleansing and removal of the biofilm is essential but can prove difficult in practice. Conventional cleansing products, such as saline, are ineffective against biofilms. Thus, debridement becomes necessary to eliminate the biofilm, yet it must be as pain-free as possible for the patient.

The choice of wound dressings is also of vital importance. Driven by the increase in antibiotic resistance, topical antimicrobials such as silver are increasingly used in wound care (Fletcher et al, 2020). These dressings have multiple sites of antimicrobial action on target cells and are regarded as an important tool in modern wound care (Kramer et al, 2018). Silver dressings are indicated for use on acute or chronic wounds with local infection and have been demonstrated to have a broad antimicrobial effect. Ionic silver does not require activation with water or saline, ensuring that silver ions are readily available to exert antimicrobial action upon initial contact with the wound bed. This swift mechanism of action means that bacterial growth is inhibited, limiting the development of infection (Kędziora et al, 2018).

### Prontosan® product range

Wound cleansing is a prerequisite for facilitating appropriate and proper wound healing. Prontosan® product range cleans wounds to create a wound environment optimal for healing. Its unique combination of betaine surfactant and polyaminopropyl biguanide (polihexanide) physically removes debris, slough and bioburden. In comparison with traditional wound irrigation solutions, wounds treated with the Prontosan® product range exhibited significantly shorter healing times (Andriessen and Eberlein, 2008; Bellingeri et al, 2016).

Prontosan® Wound Irrigation Solution, Prontosan® Wound Gel and Prontosan® Wound Gel X (B. Braun Medical AG) are indicated for cleansing and moistening of acute, chronic and infected skin wounds and burns. Additionally, Prontosan® Wound Irrigation Solution is ideal for moistening encrusted dressings or bandages prior to their removal.

Prontosan® Wound Gel and Prontosan® Wound Gel X are effective barriers, reducing microbial penetration through the dressing and provides long lasting cleansing and decontamination of the wound bed between dressing changes (Moore et al, 2016).

### Askina® Calgitrol® (B. Braun Avitum)

The Askina® Calgitrol® range has been designed to deliver a controlled and sustained release of silver ions to the wound bed while being suitable for different levels of exudate and types of wounds (i.e. differing depth or flat wounds). The patented matrix formulation of Askina® Calgitrol® Ag combines calcium alginate and silver alginate. Upon contact with exudate, the alginate matrix transforms into a soft gel, facilitating the release of silver ions.

Specifically indicated for managing exuding wounds, the range addresses a spectrum from partial to full-thickness wounds, encompassing category I-IV pressure ulcers, venous ulcers, second-degree burns and donor sites. Notably, Askina® Calgitrol® Paste is ideally suited for the effective management of tunnel wounds and diabetic foot ulcers (Opananon et al, 2012).

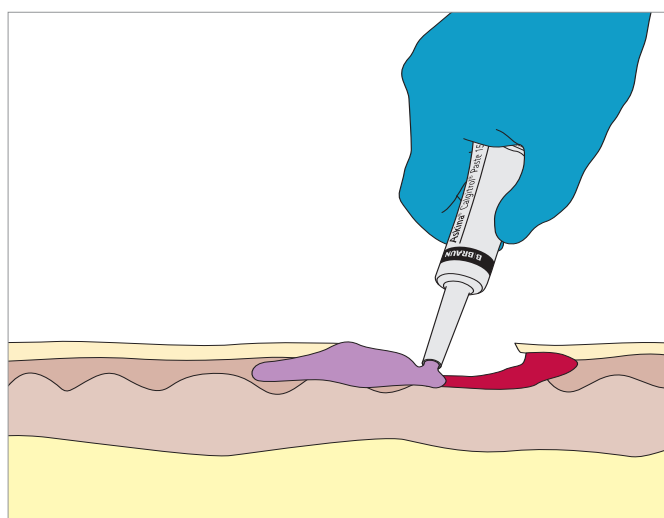
Askina® Calgitrol® Paste [see Figure 1]. conforms closely to the wound bed, helping to prevent any potential 'dead space' where bacteria may flourish. In addition to providing moisture, Askina® Calgitrol® Paste exhibits potent antimicrobial activity. It should be applied directly to the wound bed and securely covered by a secondary dressing (Askina® Foam or Askina® DresSil, chosen according to the level of exudate). This ensures that the paste remains in place and does not dry out. Importantly, it continues to release silver ions into the wound bed for the duration it

remains *in situ*.

The product is supplied sterile in a tube with an extended cannula to aid in the precise application into tunnels, sinuses and wounds of varying depths. With a notably high concentration of silver ions (Ag<sup>+</sup>; 9.5-14.8mg/g silver), Askina® Calgitrol® contributes to increased efficacy.

Askina® Calgitrol® products are versatile and effective in treating infections in both chronic and acute wounds, by reducing bacterial load, preventing bacterial multiplication in the wound bed, and actively promoting the healing process (Trial et al, 2010; Opananon et al, 2012).

**Figure 1.** Askina® Calgitrol® Paste



#### **Askina® Calgitrol® in diabetic foot ulcers**

Diabetic foot ulcers are complex wounds with a heightened risk of infection, which can have a severe impact on patients, carers and healthcare systems. Guest et al (2017) estimated the mean cost of care for a diabetic foot ulcer in the UK over 12 months to be £7,800 per ulcer. The annual cost of managing wounds is significant, with the study estimating the cost of healing wounds within the study year to be £2.1 billion, compared with £3.2 billion for the 39% of wounds that did not heal. Furthermore, the patient care cost associated with an unhealed wound was found to be 135% higher than that of a healed wound (Guest et al, 2017). As such, improving wound healing rates is associated with clinical and economic benefits.

Infection in diabetic foot ulcers not only leads to delays in wound healing but also increases the risk of amputation (International Wound Infection Institute, 2022). Without early and optimal intervention, wounds can rapidly deteriorate, necessitating amputation of the affected limb (Wounds UK, 2017). Therefore, it is vital to implement effective strategies in order to manage infection in diabetic foot ulcers to improve both patient outcomes and quality of life (Wounds UK, 2017).

The wear time of Askina® Calgitrol® dressings, coupled with their ease of removal with minimal trauma, positions Askina® Calgitrol® dressings and Askina® Calgitrol® Paste as an ideal choice for managing diabetic foot ulcers (Gallarini, 2013).

#### **Conclusion**

The following 10 cases are clinical assessments of the use of the Prontosan® product range and Askina® Calgitrol® Paste, an alginate paste dressing with ionic silver, in various types of diabetic foot ulcers for cleansing and wound bed preparation. The cases presented span a wide spectrum, ranging from wounds of a few days' duration to those present for up to four years. In each case, a consistent approach was adopted, involving the application of Askina® Calgitrol® Paste for no longer than 29 days with weekly cleansing, surgical debridement and 2-3 dressing changes, adjusted according to exudate levels. Wound size was measured and assessed weekly using VISITRAK® (Smith+Nephew), which calculates the area based on simple tracings of wounds.

It was decided to use Askina® Calgitrol® Paste for these cases because the product is well-suited for irregular

wounds or those with deep cavities, allowing the entire wound bed to be packed with the paste. Full coverage of the wound bed helps prevent bacterial growth, and the paste is effective for wounds with different levels of exudate.

The convenience of application is a significant consideration for busy clinicians, and these cases show how easy it is to apply Askina® Calgitrol® Paste, ensuring efficient wound coverage.

In diabetic foot ulcer management, where wounds may be slow to heal and treatment is long-lasting, patient comfort and satisfaction are particularly important. These cases highlight the improvement in the patient experience when dressing changes and wound cleansing are as pain-free as possible. Furthermore, the cases demonstrate the ease of removal of Askina® Calgitrol® Paste.

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## CASE 1

A 54-year-old man with type 2 diabetes for 8 years developed an ulcer on the plantar aspect of the third metatarsal head after surgical soft tissue debridement and resection.

Initially, the ulcer was treated with an activated charcoal dressing containing silver for five days, along with levofloxacin 500mg every 12 hours and clindamycin 300mg every six hours. A removable knee-high offloading device was also used, all with limited success.

The ulcer was graded as Wagner 3, Texas 3A, PEDIS 2 and SINBAD 3 [see Figure 1]. To evaluate the wound's progress, the Wollina wound score was used, resulting in a 6/7 rating, with higher scores indicating improved wound conditions.

Ankle-brachial index (ABI) was 1.60, and monofilament screening showed a loss of sensation. Distal pulses were present.

At presentation, the wound was debrided and measured 11.6cm<sup>2</sup> (2.6 x 8.8). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 8.2cm<sup>2</sup> (3.3 x 2.7), and there were improvements in the periwound skin. By week 2 [Figure 4], the wound had significantly reduced in size to 3.2cm<sup>2</sup> (2.2 x 2.0). Further improvements were seen at the week 3 dressing change, with the wound measuring 1.9cm<sup>2</sup> (0.8 x 2.5), and the Wollina score improving to 7/7 [Figure 5].

By week 4, the wound area was 1.5cm<sup>2</sup> (0.7 x 2.0). Maceration was observed at the ulcer edges, while the periwound skin remained healthy [Figure 6]. Low, clear, serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 87.07%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 1

Figure 1: Wound at presentation (pre-debridement)



Figure 2: Wound post-debridement with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 2

A 46-year-old man with type 2 diabetes for 13 years developed an ulcer on the plantar aspect of the fifth metatarsal and the cuboid bone of the left foot after surgical soft tissue debridement.

Initially, the ulcer was treated with an activated charcoal dressing containing silver for 7 days, along with levofloxacin 500mg every 12 hours and clindamycin 300mg every six hours. A removable knee-high offloading device was also used, all with limited success.

The ulcer was graded as Wagner 3, Texas 3B, PEDIS 2 and SINBAD 5 [see Figure 1]. Additionally, it obtained a Wollina score of 4/7.

The patient's ABI was 1.37, and monofilament screening showed a loss of sensation. Distal pulses were absent.

At presentation, the wound was debrided and measured 15.3cm<sup>2</sup> (5.0 x 4.6). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 10.7cm<sup>2</sup> (7.5 x 2.3), and there were improvements in the periwound skin. By week 2 [Figure 4], the wound had reduced to 10.4cm<sup>2</sup> (3.9 x 5.4). Further improvements were seen at the week 3 dressing change, with the wound further reducing to 9.7cm<sup>2</sup> (3.5 x 5.1; Figure 5).

By week 4, the wound area had reduced to 7.7cm<sup>2</sup> (2.5 x 6.1), with the Wollina score improving to 7/7 [Figure 6]. Maceration was observed at the ulcer edges, while the periwound skin had hyperkeratosis. Moderate, yellow and green fibrinous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 49.67%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 2

Figure 1: Wound at presentation (pre-debridement)



Figure 2: Wound post-debridement with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 3

A 64-year-old man with type 2 diabetes for 25 years developed an ulcer on the amputation bed of the fourth toe and metatarsal head of the left foot.

Initially, the ulcer was treated with an activated charcoal dressing containing silver for two weeks, along with amoxicillin/clavulanic acid 875/125mg every 8 hours. A removable ankle-high offloading device (postsurgical shoe) was also used, all with limited success.

The ulcer was graded as Wagner 3, Texas 3D, PEDIS 2 and SINBAD 4 [see Figure 1]. Additionally, it obtained a Wollina score of 4/7.

The patient's ABI was not evaluable, and monofilament screening showed a loss of sensation. Distal pulses were present (both posterior tibial and pedal).

At presentation, no debridement was performed, and the wound measured 5.2cm<sup>2</sup> (3.7 x 2.3). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. Improvements in the periwound skin were noted. By week 2 [Figure 4], the wound had reduced in size to 2.0cm<sup>2</sup> (3.7 x 1.8), with no debridement needed. Further improvements were seen at the week 3 dressing change, with the wound measuring 1.8cm<sup>2</sup> (2.2 x 1.3), so no debridement was needed [Figure 5]. The Wollina score improved to 6/7.

By week 4, the wound area had significantly reduced to 1.3cm<sup>2</sup> (2.2 x 1.3). Maceration was observed at the ulcer edges, while the periwound skin remained healthy [Figure 6]. Low, clear and serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 75%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 3

Figure 1: Wound at presentation



Figure 2: Wound at presentation with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 after washing and removal of dressing



Figure 5: Week 3 after washing and removal of dressing



Figure 6: Week 4 post-debridement





## CASE 4

A 69-year-old man with type 2 diabetes for 22 years developed an ulcer on the lateral aspect of the fifth metatarsal of the left foot.

Initially, the ulcer was treated with an activated charcoal dressing containing silver for three weeks. A removable knee-high offloading device was also used, all with limited success.

The ulcer was graded as Wagner 2, Texas 2B, PEDIS 2 and SINBAD 4 [see Figure 1]. Additionally, it obtained a Wollina score of 5/7.

The patient's ABI was 1.08, and monofilament screening showed a loss of sensation. Distal pulses were present (both posterior tibial and pedal).

At presentation, the wound was debrided and measured 4.3cm<sup>2</sup> (3.2 x 1.8). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 2.5cm<sup>2</sup> (1.2 x 3.6), with the Wollina score improving to 7/7, and there were improvements in the periwound skin. By week 2 [Figure 4], the wound had reduced to 0.7cm<sup>2</sup> (0.6 x 2.0). Further improvements were seen at the week 3 dressing change, with the wound measuring 0.5cm<sup>2</sup> (1.8 x 0.4; Figure 5).

By week 4, the wound area had reduced to <0.1cm<sup>2</sup> (2.2 x 1.3). Hyperkeratosis was observed at the ulcer edges [Figure 6], with no exudate present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 97.67%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 2

Figure 1: Wound at presentation (pre-debridement)



Figure 2: Wound post-debridement with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 5

A 74-year-old man with type 2 diabetes for 10 years developed an ulcer on the plantar aspect of the cuboid bone of the left foot.

Initially, the ulcer was treated with an activated charcoal dressing containing silver for one week, along with amoxicillin/clavulanic acid 875/125mg every 8 hours for 7 days. A 15 mm felted foam and a removable ankle-high offloading device (postsurgical shoe) were also used, all with limited success.

The ulcer was graded as Wagner 2, Texas 2B, PEDIS 2 and SINBAD 4 [see Figure 1]. Additionally, it obtained a Wollina score of 5/7.

The patient's ABI was not evaluable as it was not located, and monofilament screening showed a loss of sensation. Distal pulses were absent.

At presentation, the wound was debrided and measured 8.4cm<sup>2</sup> (2.7 x 5.9). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 6.2cm<sup>2</sup> (4.9 x 2.0), and there were improvements in the periwound skin. By week 2 [Figure 4], the wound had reduced to 5.3cm<sup>2</sup> (1.5 x 5.2). Further improvements were seen at the week 3 dressing change, with the wound measuring 3.8cm<sup>2</sup> (1.4 x 4.1; Figure 5).

By week 4, the wound area was 3.5cm<sup>2</sup> (1.1 x 3.8), with the Wollina score improving to 7/7. Maceration was observed at both the ulcer edges and periwound skin [Figure 6]. Moderate, clear, serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 43.55%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 5

Figure 1: Wound at presentation (pre-debridement)

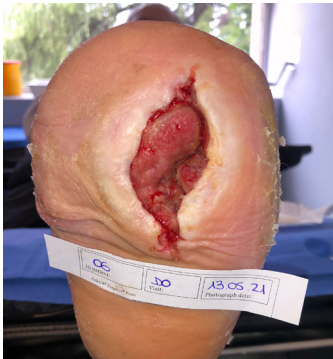


Figure 2: Wound post-debridement with Askina® Calgitrol® Paste applied

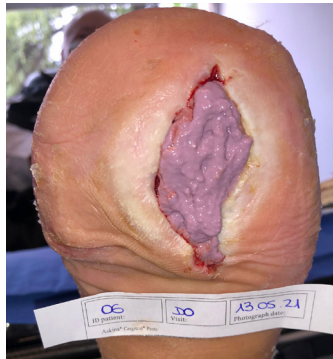


Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 6

A 64-year-old man with type 2 diabetes for 19 years developed an ulcer on the plantar aspect of the first metatarsal head of the left foot (after resection of the first metatarsal head).

Initially, the ulcer was treated with an activated charcoal dressing containing silver for one week, along with amoxicillin/clavulanic acid 875/125mg every 8 hours and metronidazole 250mg every 12 hours. A removable knee-high offloading device was also used, all with limited success.

The ulcer was graded as Wagner 3, Texas 3B, PEDIS 3 and SINBAD 6 [see Figure 1]. Additionally, it obtained a Wollina score of 5/7.

The patient's ABPI was 1.16, and monofilament screening showed a loss of sensation. Distal pulses were absent.

At presentation, no debridement was performed, and the wound measured 4.3cm<sup>2</sup> (2.6 x 2.5). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 1.9cm<sup>2</sup> (2.2 x 1.4), with the Wollina score improving to 7/7, and there were improvements in the periwound skin. By week 2 [Figure 4] of cleansing and debridement, the wound had reduced to 1.8cm<sup>2</sup> (2.1 x 1.1). Further improvements were seen at the week 3 dressing change, with the wound measuring 1.1cm<sup>2</sup> (2.0 x 0.7; Figure 5).

By week 4, the wound area was 0.6cm<sup>2</sup> (2.4 x 0.5). Maceration was observed at the ulcer edges and periwound skin [Figure 6]. High, clear, serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 86.5%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as moderate.

### Case 6

Figure 1: Wound at presentation



Figure 2: Wound at presentation with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 7

A 76-year-old man with type 2 diabetes for 8 years developed an ulcer on the amputation bed of the second, third and fourth toes of the right foot.

Initially, the ulcer was treated with sucrose octasulfate and a foam dressing for 20 weeks. A removable knee-high offloading device (postsurgical shoe) was also used, all with limited success.

The ulcer was graded as Wagner 2, Texas 2A, PEDIS 1 and SINBAD 4 [see Figure 1]. Additionally, it obtained a Wollina score of 6/7.

The patient's ABI was 0.91, and monofilament screening showed a loss of sensation. Distal pulses were absent.

At presentation, no debridement was performed and the wound measured 6.6cm<sup>2</sup> (3.1 x 2.7). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 4.7cm<sup>2</sup> (2.8 x 2.1), with the Wollina score improving to 7/7, and there were improvements in the periwound skin. By week 2 [Figure 4], the wound had reduced to 4.2cm<sup>2</sup> (1.8 x 3.0). Further improvements were seen at the week 3 dressing change, with the wound measuring 3.0cm<sup>2</sup> (1.7 x 2.5; Figure 5).

By week 4, the wound area had reduced to 2.4cm<sup>2</sup> (1.8 x 1.6). Both the ulcer edges and periwound skin were observed as healthy [Figure 6]. Low, clear, serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 63.64%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 7

Figure 1: Wound at presentation



Figure 2: Wound with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 8

A 59-year-old man with type 2 diabetes for 10 years developed an ulcer on the medial aspect of the heel of the left foot.

Initially, the ulcer was treated with foam with silver dressing along with amoxicillin/clavulanic acid 875/125mg every 8 hours for 7 days. A removable ankle-high offloading device was also used, all with limited success.

The ulcer was graded as Wagner 2, Texas 2B, PEDIS 1 and SINBAD 4 [see Figure 1]. Additionally, it obtained a Wollina score of 4/7.

The patient's ABI was 0.81, and monofilament screening showed a loss of sensation. Distal pulses were absent.

At presentation, the wound was debrided and measured 2.4cm<sup>2</sup> (2.6 x 1.5). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 1.2cm<sup>2</sup> (1.4 x 1.6). By week 2 [Figure 4], the wound had reduced to 0.6cm<sup>2</sup> (0.8 x 1.0). Further improvements were seen at the week 3 dressing change, with the wound measuring 0.4cm<sup>2</sup> (0.6 x 1.2), and the Wollina score improving to 6/7 [Figure 5].

By week 4, the wound area was 0.3cm<sup>2</sup> (1.0 x 0.6). Maceration was observed at the ulcer edges, while the periwound skin remained healthy [Figure 6]. Moderate, clear, serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 87.5%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 8

Figure 1: Wound at presentation (pre-debridement)



Figure 2: Wound post-debridement with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 9

A 68-year-old man with type 2 diabetes for 2 years developed an ulcer on the amputation bed of the first metatarsal of the right foot.

Initially, the ulcer was treated with hydrocolloid hydrofiber dressing for 8 weeks. A removable ankle-high offloading device (postsurgical shoe) was also used, all with limited success.

The ulcer was graded as Wagner 2, Texas 2C, PEDIS 1 and SINBAD 4 [see Figure 1]. Additionally, it obtained a Wollina score of 2/7.

The patient's ABI was 1.15, and monofilament screening showed a loss of sensation. Distal pulses were absent.

At presentation, the wound was debrided and measured 3.9cm<sup>2</sup> (4.5 x 1.1). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area reduced to 2.9cm<sup>2</sup> (3.1 x 1.1cm) and periwound skin improved. By week 2 [Figure 4], the wound had reduced to 2.8cm<sup>2</sup> (3.5 x 0.9cm). Further improvements were seen at the week 3 dressing change, with the wound measuring 1.4cm<sup>2</sup> (3.3 x 1.1cm; Figure 5).

By week 4, the wound area had remained constant at 1.4cm<sup>2</sup>, but with altered dimensions (4.4 x 0.8), and the Wollina score improved to 6/7. Maceration was observed at the ulcer edges, while the periwound skin remained healthy [Figure 6]. Low, clear, serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 87.5%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 9

Figure 1: Wound at presentation (pre-debridement)



Figure 2: Wound post-debridement with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



## CASE 10

A 70-year-old woman with type 2 diabetes for 10 years developed an ulcer on the amputation bed of the distal phalanx of the hallux of the left foot.

Initially, the ulcer was treated with a hydrocolloid hydrofiber dressing for 3 weeks. A removable ankle-high offloading device (postsurgical shoe) was also used, all with limited success.

The ulcer was graded as Wagner 2, Texas 2B, PEDIS 1 and SINBAD 3 [see Figure 1]. Additionally, it obtained a Wollina score of 5/7.

The patient's ABI was 1.10, and monofilament screening showed a loss of sensation. Distal pulses were present.

At presentation, the wound was debrided and measured 2.4cm<sup>2</sup> (2.1 x 2.0). The decision was made to change therapy to Askina® Calgitrol® Paste, with Prontosan® Wound Irrigation Solution used for cleansing [Figure 2].

### Results

At the week 1 follow-up, the wound was cleansed with Prontosan® Wound Irrigation Solution and debrided [Figure 3]. The wound area had reduced to 1.0cm<sup>2</sup> (0.8 x 1.6). By week 2, the wound had reduced in size to 0.5cm<sup>2</sup> (0.5 x 1.0), with the Wollina score improving to 7/7 [Figure 4]. Further improvements were seen at the week 3 dressing change, with the wound measuring 0.1cm<sup>2</sup> (0.7 x 0.4cm; Figure 5).

By week 4, the wound area was <0.1cm<sup>2</sup> and almost completely healed. The ulcer edges and the periwound skin were observed as healthy [Figure 6]. Low, clear, serous exudate was present.

Over the course of the four-week treatment with Askina® Calgitrol® Paste, the wound area decreased by 95.84%. The dressing was easy to apply and adapted well to the wound bed with easy removal without pain or tissue damage. Exudate absorption and retention were also rated as very good.

### Case 10

Figure 1: Wound at presentation (pre-debridement)



Figure 2: Wound post-debridement with Askina® Calgitrol® Paste applied



Figure 3: Week 1 post-debridement



Figure 4: Week 2 post-debridement



Figure 5: Week 3 post-debridement



Figure 6: Week 4 post-debridement



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