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Managing venous leg ulceration



Case reports
for **JOBST**[®]
UlcerCARE
Ready-to-Wear
2 in 1 Compression
System

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JOBST® UlcerCARE Ready-to-Wear 2 in 1 Compression System

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Use of a two-layer compression stocking system for a painful recurring venous leg ulcer



Figure 1. Painful venous leg ulcer at initial presentation.

This 38-year-old lady presented with an extremely painful recurrence of a venous leg ulcer — her third in five years (Figure 1). She was married and a full-time mother to two children under the age of 10.

'I remember many nights where the pain was so horrendous that I was unable to sleep. This used to happen more after changing the dressing. I would always wait until the children were in bed so that they didn't have to see me in pain and then have a shower, wash my leg and re-dress the ulcer at about 10.00pm. At its worse, I would still be in agony at 4.00am.'

During both her pregnancies, she suffered from deep vein thrombosis (DVT). This resulted in deep venous damage, which was surgically corrected by venous bypass in 2010. She was on lifelong anticoagulants and had been prescribed RAL compression class 2 (CCL 2) hosiery, which she said she wore consistently. She suffered chronic pain in her lower leg for years, even during periods when the ulcer healed and was under a specialist pain team.

Initial presentation

The patient's venous leg

ulcer had been present for four weeks and had recurred despite wearing compression hosiery. The main issue for the patient was the pain, which was causing her distress and restricting her day-to-day life.

'The ulcer stings and burns like mad, but the worst pain comes from my shin. It feels as if my veins are going to explode.'

At initial presentation, the ulcer measured 5x4cm and consisted of 100% sloughy tissue. The surrounding skin was inflamed and the patient was currently on a course of antibiotics that had been prescribed by her GP. She was using foam dressings and RAL CCL 2 stockings. However, she found the stockings very stiff and was having difficulty in putting them on and removing them. On examination, her ankle brachial pressure index (ABPI) was 1, and the dorsalis pedis and posterior tibial artery pulses were present.

To encourage autolytic debridement, it was decided to add a hydrofiber dressing under foam dressings, and a JOBST® UlcerCARE Ready-to-Wear 2 in 1 Compression System (total of 40mmHg). A venous duplex scan was also requested to ensure that the previous venous bypass surgery was still patent.

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Figure 2. Venous leg ulcer at first review.

First review

At the first review six weeks later, the venous duplex scan showed that the bypass had remained patent. The ulcer had reduced in size to 4x3cm, and the percentage of slough had decreased to 95% and was more superficial in nature (Figure 2). The inflammation of the periwound skin had also resolved. Although the pain was still troubling the patient, she said during her review at the pain clinic that:

'I actually find the pain easier to deal with, knowing that the wound is getting better.'

She was finding the 2 in 1 compression system far more comfortable than the compression stockings previously worn and much easier to apply.

'The main advantage is that I can apply them [JOBST UlcerCARE] myself at home... I used to go to the

clinic on a Wednesday and even if my appointment was at 9.00am, I would still be in a huge amount of pain from the washing and re-dressing for the rest of the day. This was especially hard when my daughter was pre-school age. I used to have to pay for childcare as I couldn't have looked after her in that state. To be honest, I think most Wednesdays were spent in tears.'

'Another advantage is the comfort. The bandages used to start slipping down my leg after a day or so, obviously with two kids and our own business, it was quite rare that I could sit with my legs elevated, and would leave large dents in my leg by the end of the week. They were also rather uncomfortable, especially in hot weather. While on the subject of comfort, another advantage of the compression system is that I have more freedom with which shoes I can wear.'

Second review

After a further six weeks, the patient was again reviewed. The ulcer had continued to improve, although there was some irritation just above the dressing (Figure 3). However, the patient admitted to itching this area and provoking the sensitivity. A two-



Figure 3. Venous leg ulcer at second review.

week course of hydrocortisone 1% was prescribed to relieve the irritation. As the patient was happy with the treatment regimen and the pain was continuing to lessen, she agreed to continue with the hydrofiber and foam dressings with the 2 in 1 compression system.

'The benefits of the new hosiery are the comfort and the fit. They are much softer and feel so much nicer on the leg as well as being easier to put on. They also have a much wider band at the top which means they roll down the leg a lot less which previously was causing some pain and discomfort.'

Final review

At the final review six weeks later, whilst the ulcer had not completely healed it was still continuing to improve and had reduced in size to 2x2cm with a 90% clean granulating wound



Figure 4. Venous leg ulcer at final review.

bed (Figure 4). The irritation that had been present at the previous review had now settled and the skin was intact.

The pain that had been having such a negative impact on the patient's quality of life resolved, which lifted her mood to the point that she felt that she was getting her life back. She was now able to play with her children and carry out normal activities of daily living without the ulcer being constantly on her mind.

'... because I can change the stocking kit every 2–3 days, I don't have to put up with the odour from the ulcer any more. It was always hard to feel attractive, as a woman in her 20s and early 30s should, when I had an awful smell following me around! The smell also used to linger in the house and "Urgh, Mum, I can smell your leg"

became a regular shout of disgust in our house! I am making a joke of it now, but at the time it was upsetting and demoralising.'

Simple non-adherent dressings were applied and the JOBST UlcerCARE Ready-to-Wear 2 in 1 Compression System was continued. The patient was advised to continue with the compression system until complete healing had occurred. Following this, the patient was recommended to wear RAL CCL 3 hosiery to lessen the risk of recurrence. As the patient was happy with the results that had been achieved, it was hoped that she would concord with treatment in the future (Anderson, 2012).

Conclusion

This case shows how managing venous leg ulcers not only involves treating the wound, but also needs to address the negative impact that an ulcer might have on daily life. Pain has been seen to be the most frequently cited symptom of leg ulceration (Palfreyman, 2008), as was the case with this patient. Pain can have a significant impact on quality of life and a patient's sense of wellbeing (Charles, 1995; Gray et al, 2011; International Consensus, 2012), causing the patient great concern in that

it has physical, psychological and social effects. By helping to reduce and manage pain, this patient regained her life and felt confident about the future.

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Treating multiple leg ulceration in a drug abusing patient with a two-layer compression stocking system



Figure 1. Leg ulcers at presentation.

A 36-year-old male patient presented with multiple ulcers to both his legs of 14 months' duration (Figures 1 and 2). He had a previous history of intravenous (IV) drug abuse and deep vein thrombosis (DVT) to both his legs. He tried 4-layer compression bandaging but, due to his chaotic lifestyle, had failed to attend follow-up appointments consistently and maintain compression therapy. Wound management for this patient group can be complex as, despite having the same problems with their wounds as the non drug-taking public, such as pain, exudate, odour and infection, fears of discrimination may delay their seeking treatment, which can lead to slower recovery and chronicity (Finnie and Nicolson, 2002; Roden, 2009).

Initial presentation

At initial presentation on 2 May 2012, the ulcers measured:

- Right medial aspect: 10x7cm (Figure 3)
- Left medial aspect: 9x9cm (Figure 4)
- Right lateral aspect: 15x12cm (Figure 5)
- Left lateral aspect: 27x18cm (Figure 6).

The wounds were all malodorous and there were signs of severe colonisation, indicating the presence of infection.



Figure 2. Left medial and right lateral aspects at presentation.



Figure 3. Right medial aspect at presentation.



Figure 4. Left medial aspect at presentation.

Both the right and left wounds to the medial aspect had superficial sloughy tissue present and were colonised, leaking copious amounts of exudate, which necessitated daily dressing changes (Figures 3 and 4).

The ulcer to the right and left lateral aspects were again malodorous (Figures 5 and 6).

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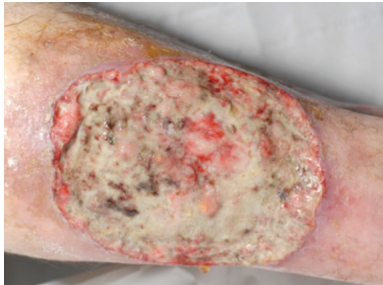


Figure 5. Right lateral aspect at presentation.

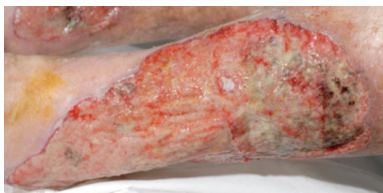


Figure 6. Left lateral aspect at presentation.

The one on the right leg had 98% sloughy tissues and was very leaky (Figure 5).

The odour and leakage from the ulcers were affecting the patient's quality of life, especially his relationship with his partner.

'They stank, I was so embarrassed.'

In view of this, the goals of treatment were to reduce the volume of exudate and promote healing.

After discussion with the patient, it was agreed to dress the wounds with an antimicrobial hydrofiber dressing plus an adhesive-bordered foam dressing, and a hosiery

kit. JOBST® UlcerCARE Ready-to-Wear 2 in 1 Compression System was chosen. This consists of two components, a medical stocking and a compression liner (Figures 7 and 8), which provide a gradient compression of 40mmHg at the ankle, as well as holding the dressings in place. Both garments were recommended to be worn throughout the day, and only the liner at night. The patient was happy with this treatment regimen, as he felt optimistic about the outcome and had not had any previous difficulties when wearing compression garments.

First review

At the first review on 13 June 2012, the wound bed of the ulcer on the right medial aspect had reduced in size to 8x2.5cm and there was evidence of surrounding epithelialisation (Figure 9). The level of exudate was minimal and there was no malodour. There had already been a general reduction in oedema of the limb and so a non-adherent foam dressing was applied with JOBST UlcerCARE.

The ulcer on the left medial aspect had also reduced in size to 8x6cm. Although the superficial sloughy tissue was still present, exudate levels had decreased and there was

no odour (Figure 10). The hydrofiber and foam dressings were continued.



Figure 7. JOBST® UlcerCARE compression liner to hold dressings in place and provide mild compression.



Figure 8. JOBST® UlcerCARE knee-high outer stocking.



Figure 9. Right medial aspect after one month of treatment.



Figure 10. Left medial aspect after one month of treatment.



Figure 11. Right lateral aspect after one month of treatment.

The ulcer on the right lateral aspect still continued to have high levels of exudate, although improvement had been made as granulating tissue was now regenerated to surface level and the bacterial load had reduced (Figure 11). Again, the same treatment regimen was continued with the dressings and compression.

Similarly, the ulcer on the left lateral aspect had evidence that the percentage of sloughy tissue was reducing, as there were granulation buds to the wound edges (Figure 12). Although colonisation was still present, exudate levels and malodour were reducing.

'I am now able to go out with my partner without the



Figure 12. Left lateral aspect after one month of treatment.

pain and embarrassment of odour.'

Second review

At the second review on 4 July 2012, both the ulcers on the right and left medial aspects had continued to reduce in size, with epithelialisation present (Figures 13 and 14).



Figure 13. Right medial aspect after two months of treatment.



Figure 14. Left medial aspect after two months of treatment.

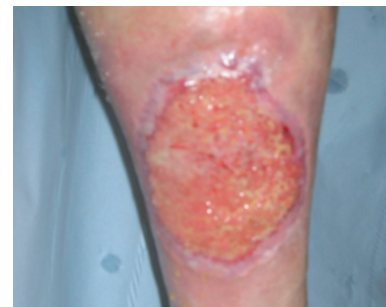


Figure 15. Right lateral aspect after two months of treatment.



Figure 16. Left lateral aspect after two months of treatment.

The right ulcer continued to be treated with just a non-adherent dressing and JOBST UlcerCARE Ready-to-Wear 2 in 1 Compression System. The left medial ulcer now measured 6x6cm and had 60% granulation and 40% sloughy tissue, with surrounding epithelialisation. The same treatment regimen as before was continued (hydrofiber and foam dressings).

The ulcers to the lateral aspects of the legs also improved, with epithelialisation evident around the wound edges (Figures 15 and 16). The problems with exudate that the ulcer on the right aspect had been experiencing were resolving and the wound measured 13x10cm. The same treatment regimen was continued with dressings and JOBST UlcerCARE Ready-to-Wear 2 in 1 Compression System.

Third review

At the third and final review

on 8 August 2012, the ulcer to the right medial aspect had completely healed (Figure 17), whilst the others were continuing along the healing trajectory.

The wound to the left medial aspect was still reducing in size (measuring 2x1.5cm) and so treatment was continued with the non-adherent dressing and JOBST UlcerCARE (Figure 18).

Likewise, both wounds to the lateral aspects of the leg had improved dramatically with a marked reduction in exudate levels and pain from the outset of treatment (Figures 19 and 20).

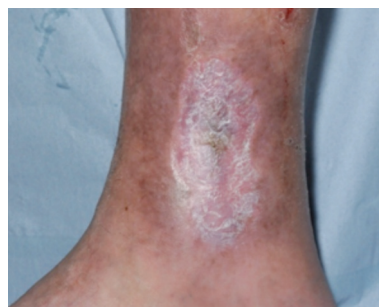


Figure 17. After three months of treatment the ulcer to the right medial aspect had completely healed.



Figure 18. Left medial aspect after three months of treatment.

The wound to the right leg had minimal levels of exudate, while that to the left had moderate.

However, there was evidence of active debridement and peri-ulcer epithelialisation to the latter, with both wound beds continuing to reduce in size.

'Best improvement! Now they just simply don't hurt.'

'IV drug use reduced to nil, I was previously having to top up my methadone with injecting amphetamines as the pain was so bad and because of my habit the GP



Figure 19. Right lateral aspect after three months of treatment.



Figure 20. Left lateral aspect after three months of treatment.

would not prescribe me any more pain killers. Since I have been wearing the stockings, the pain has reduced so much that I no longer need to use amphetamines only needing my prescribed methadone.'

The patient found JOBST UlcerCARE easy to put on and take off, comfortable to wear, and was happy with the appearance — all of which helped with concordance.

Conclusion

Wound management for patients who are IV drug abusers can be difficult because of their complex and extensive needs (Powell, 2011). Their ability to self-care can change from day to day, with their chaotic lifestyles making concordance a challenge (Cook and Jordan, 2010). However, this patient was able to take control of his

own care and change dressings when they became saturated or odorous and wear the JOBST UlcerCARE Ready-to-Wear 2 in 1 Compression System.

'The ability to self-care has changed my life, as soon as they smell I can change the dressing not having to wait for an appointment to see the nurse.'

This had a considerable impact on his quality of life, as in only two weeks the hosiery had reduced limb volumes, and the lack of bulky bandages allowed him to wear normal clothes and footwear and carry out daily activities, including taking young children to school.

'I am now able to play rugby with (my) son. When ulcers were bad, I could not even get off the sofa.'

Self-care with hosiery also meant that the patient was not tied down to attending clinic appointments, and so treatment was not affected by the moments of chaos in his life.

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