Evaluating the role of Liquacel Ag silver dressing in multidisciplinary diabetic foot care:
A single-centre comparative retrospective study

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Introduction

Wound healing in diabetic foot ulceration (DFU) remains a significant clinical challenge, with chronic non-healing DFU frequently leading to prolonged morbidity, infection, and risk of limb loss. Despite optimal dressing choice being one of the most fundamental components in wound care, there remains limited high-quality evidence to guide clinicians on optimal dressing selection, particularly in complex DFU.

Aims

We aimed to evaluate the effectiveness of Liquacel® Ag, a silver-impregnated dressing, as a single-choice dressing in supporting wound healing in individuals with DFU managed within a multidisciplinary care model.

Method

We conducted a retrospective comparative review of 37 patients attending our tertiary multidisciplinary diabetic foot clinic. Twenty-one (21/37) individuals received wound care with Liquacel® Ag. Sixteen (16/37) received standard care without silver dressings (typical dressings included Inadine and Aquacel were used as comparators). Both groups received equivalent standards of care, including targeted infection management, offloading (total contact cast, Prafo boot, post-op footwear as indicated), and revascularisation if necessary. Outcomes were assessed at 12 weeks, including 50% wound area reduction and complete wound healing either at or after 12 weeks.

Results

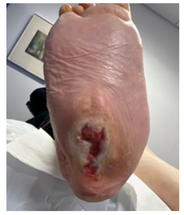
The groups were similar in sex distribution (76% male in Liquacel® Ag vs. 75% in controls), diabetes prevalence (76% vs. 69%), and wound chronicity (76% in both). Peripheral arterial disease was more prevalent in controls, although this was not statistically significant (88% vs. 62%, $p<0.10$). At 12 weeks, 76% of Liquacel® Ag patients achieved >50% wound area reduction compared to 44% in controls ($p=0.04$). Complete wound healing at 12 weeks was 24% vs. 31% ($p=0.63$), while ongoing healing beyond 12 weeks was higher in the Liquacel® Ag group (48% vs. 19%, $p=0.05$). No adverse effects were reported in either group, and patient satisfaction was 100% in the Liquacel Ag cohort.

Category	Control Group (n=16)	Liquacel® Ag Group (n=21)	p-value
Male (%)	75%	76%	0.94
Diabetes Prevalence (%)	69%	76%	0.64
Peripheral Arterial Disease (%)	88%	62%	0.10
Chronic Wound (%)	81%	76%	0.72
Forefoot Wounds (%)	75%	48%	0.10
>50% Wound Size Reduction at 12 Weeks (%)	44%	76%	0.04
Complete Healing by 12 Weeks (%)	31%	24%	0.63
Ongoing Healing After 12 Weeks (%)	19%	48%	0.05
Adverse Effects	None	None	—
Patient Satisfaction	Not undertaken	100%	—

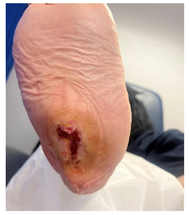
Case Study 1

55-year-old female - Type 2 DM, neuropathy, diabetic foot ulceration, end stage renal dialysis.
Image 1: Before start of treatment 18.02.25
Image 2: Week 3 of treatment 04.03.25
Image 3: Week 7 of treatment 08.04.25

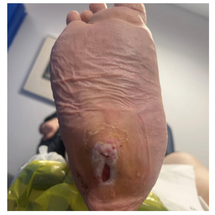
Case Study 1 : Image 1



Case Study 1 : Image 2



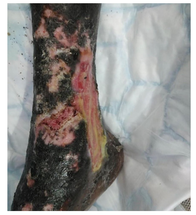
Case Study 1 : Image 3



Case Study 2

34-year-old male – bilateral chronic ulcerations, Sickle cell-haemoglobin SS disease, Schizophrenia, cholecystitis and cholangitis.
Image 1: Before start of treatment 14.02.25
Image 2: Week 5 of treatment 21.03.25
Image 3: Week 7 of treatment 04.04.25

Case Study 2 : Image 1



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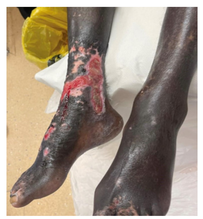
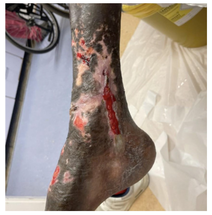


Case Study 2 : Image 3



Conclusion

Liquacel® Ag dressing was associated with significantly enhanced wound size reduction and positive ongoing healing within multidisciplinary diabetic foot care. These results support its use throughout the course of the DFU as part of an integrated treatment plan in complex and chronic DFU to optimise healing outcomes. In the two case studies, both individuals had chronic ulcerations which macerated very easily, Liquacel® Ag has helped manage the maceration and more granulating tissue + within 5 weeks the size of the ulceration has reduced. The feedback received from patients and the clinician has been very positive, and they would like to use the dressing until full closure of the ulcer is achieved.

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