

Topical Probiotics for Diabetic Foot Ulcers:

A Comparative Case Report

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TAKE-HOME

Two diabetic foot ulcers in one patient, treated in parallel for 8 weeks — one with topical probiotics, one with conventional silver dressing.

Background

Chronic DFUs are sustained by neuropathy, impaired repair, inflammation, dysbiosis and biofilm. Topical probiotics are a microbiome-targeted approach, but human evidence remains limited.

Patient and baseline wound characteristics

62-year-old man; diabetes for 5 years; HbA1c 8.7%; sensorimotor neuropathy; no PAD. Two chronic ulcers of about 2 months' duration; baseline cultures grew *Providencia stuartii* in both wounds.

PROBIOTIC Plantar left foot 10.1 cm² RESVECH 9	CONVENTIONAL Lateral talocrural 25.3 cm² RESVECH 16
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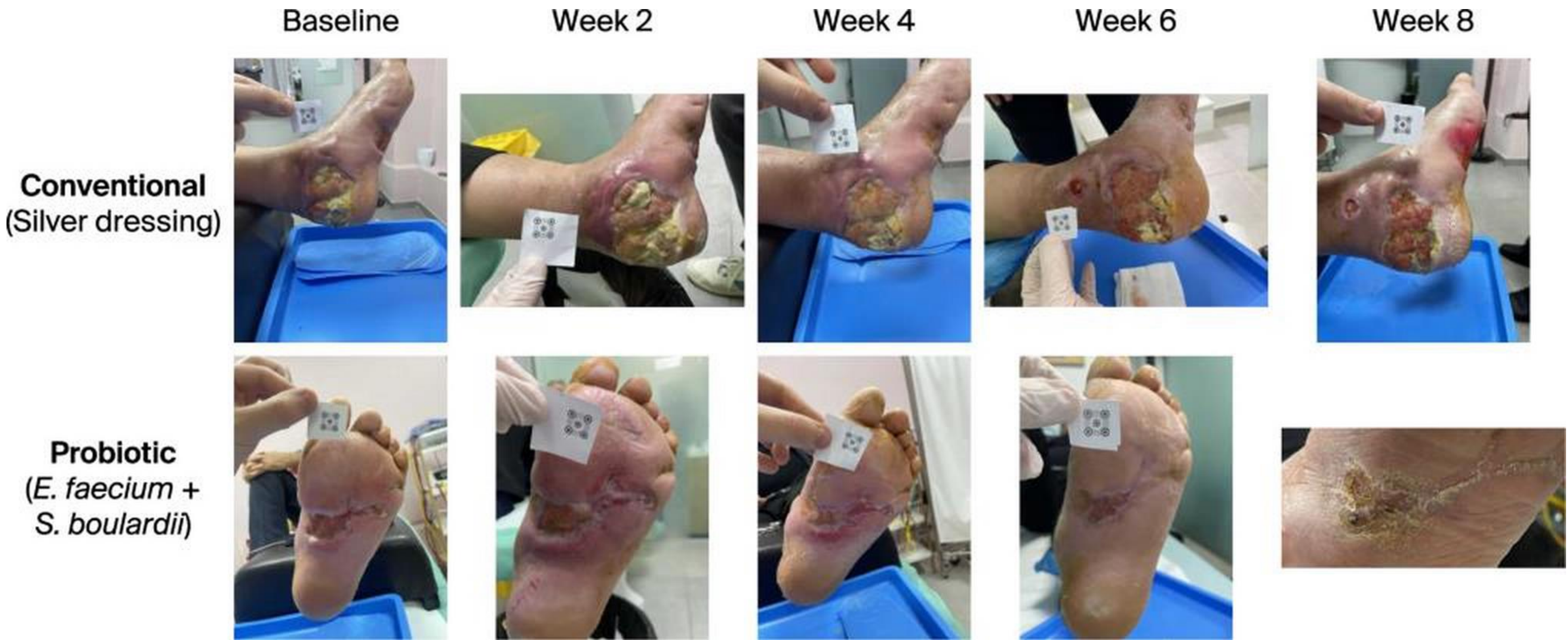
Eight-week treatment protocol

Assessment: RESVECH 2.0 + digital planimetry at baseline and weeks 2, 4, 6 and 8. Both: sterile saline cleansing • dressing changes every 48 h • no systemic antibiotics • no surgical debridement

Probiotic <i>E. faecium</i> + <i>S. boulardii</i> 1 × 10 ⁹ CFU each + hydrogel	Conventional Silver-impregnated antimicrobial dressing
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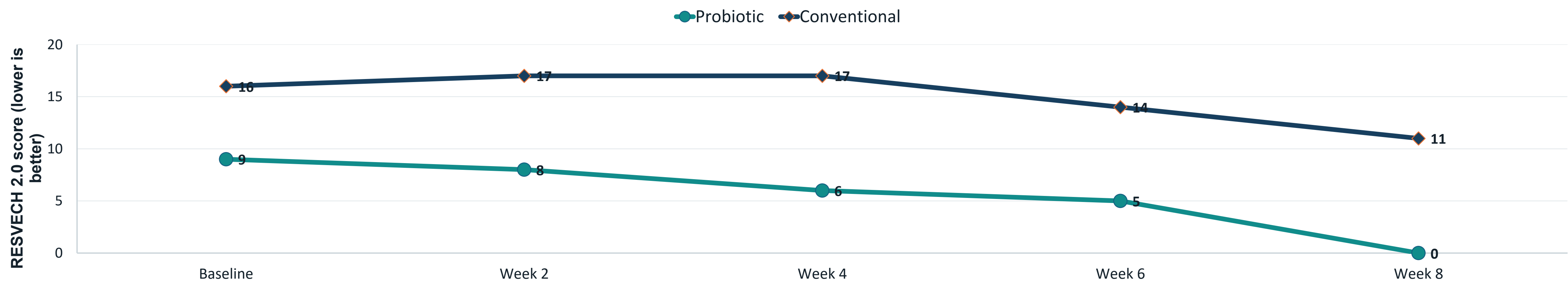
Plantar offloading was proposed but declined.

Serial clinical course



Upper row: conventional silver dressing. Lower row: topical *E. faecium* + *S. boulardii*. Clinical photographs reproduced from the case report with patient consent.

RESVECH 2.0 trajectory



Key outcomes

CLOSED

Smaller, less severe at baseline (10.1 cm², RESVECH 9)
Probiotic-treated ulcer
Closed by week 8 despite declined offloading

OPEN

Larger, more severe at baseline (25.3 cm², RESVECH 16)
Conventional ulcer
RESVECH 16 → 11; remained open at week 8

Interpretation

Using two wounds in the same patient reduced differences in systemic factors during follow-up. Persistent *P. stuartii* indicates that clinical improvement should not be equated with microbiological eradication.

Limitations

Single-patient, non-randomized observation. Wounds differed in baseline size, severity and location — preventing causal attribution. No blinded assessment; culture methods did not characterize the wound microbiome.

CONCLUSION This hypothesis-generating observation supports larger controlled studies of topical probiotics as adjunctive DFU therapy.