

Combination Use Of A Bioresorbable Silver Matrix And An Unna Boot To Treat A Non-Healing Lower Extremity Wound



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BACKGROUND

A 26-year-old female obese patient presented with traumatic wounds to her left foot and ankle from a motorcycle accident. She was treated with conservative wound management and was given antibiotics for 5 days. On her follow up appointment 10 days later, her treating physician referred her to wound care due to deteriorating wounds, prescribed oral antibiotics, and ordered wound cultures. Her wounds measured 1.2 cm³ (Proximal), 1.2 cm³ (Heel), 0.96 cm³ (Midfoot) and 0.14 cm³ (Distal). After her cultures came back negative, a bioresorbable silver matrix (Microfilm Matrix*) was used to manage bioburden and provide a template to support reepithelialization.

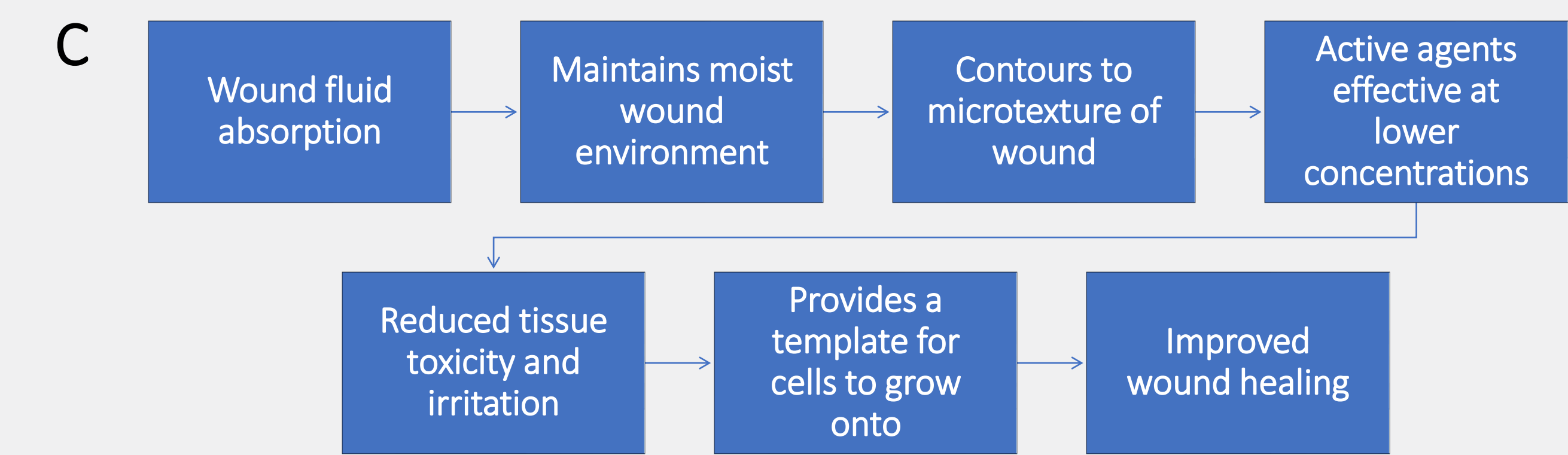
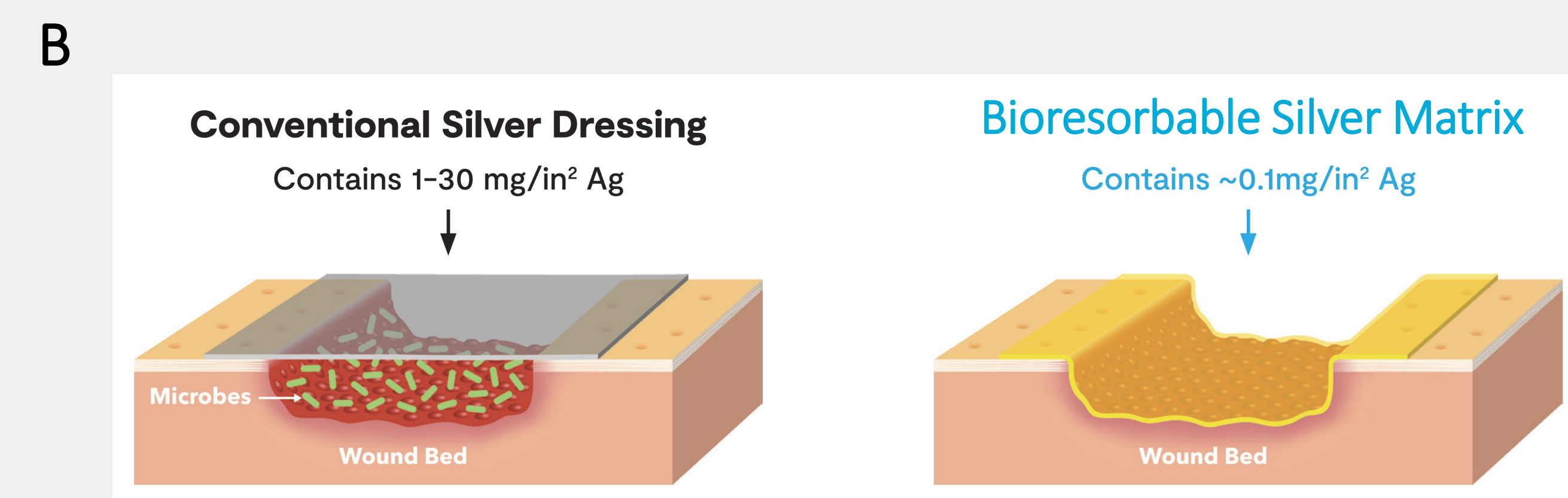
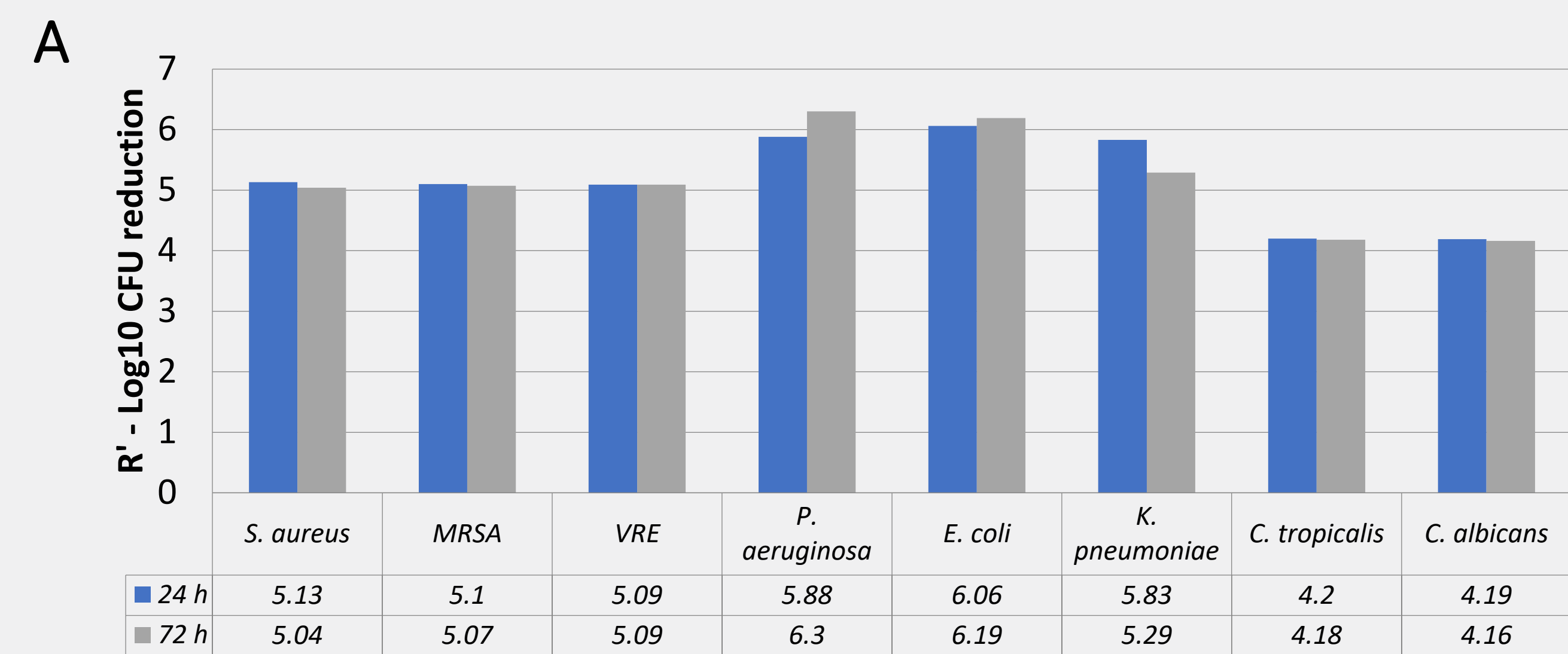


Figure 1: A) The Matrix provides a 4- to 6-log reduction in a variety of bacteria and yeast, including MRSA and VRE.^{1,2} B) Mechanism of action of a bioresorbable silver matrix. Unlike conventional silver dressings, the Matrix contours to the microtexture of the wound bed allowing active ingredients to be effective at low doses.^{3,4} C) The mechanism of action of the Matrix is designed to facilitate improved wound healing.^{3,4}

METHODS

The patient's wounds were debrided with sharp debridement, then Microfilm Matrix was applied as the contact dressing once a week for 8 weeks.

RESULTS

One week after Microfilm Matrix treatment, all four wounds decreased by 40 to 80%. At week 2, one wound was fully healed, and by week 4, three wounds were greater than 93% healed and the fourth wound was 85% healed. Three wounds were fully healed by week 7 and the proximal wound was healed by week 8.

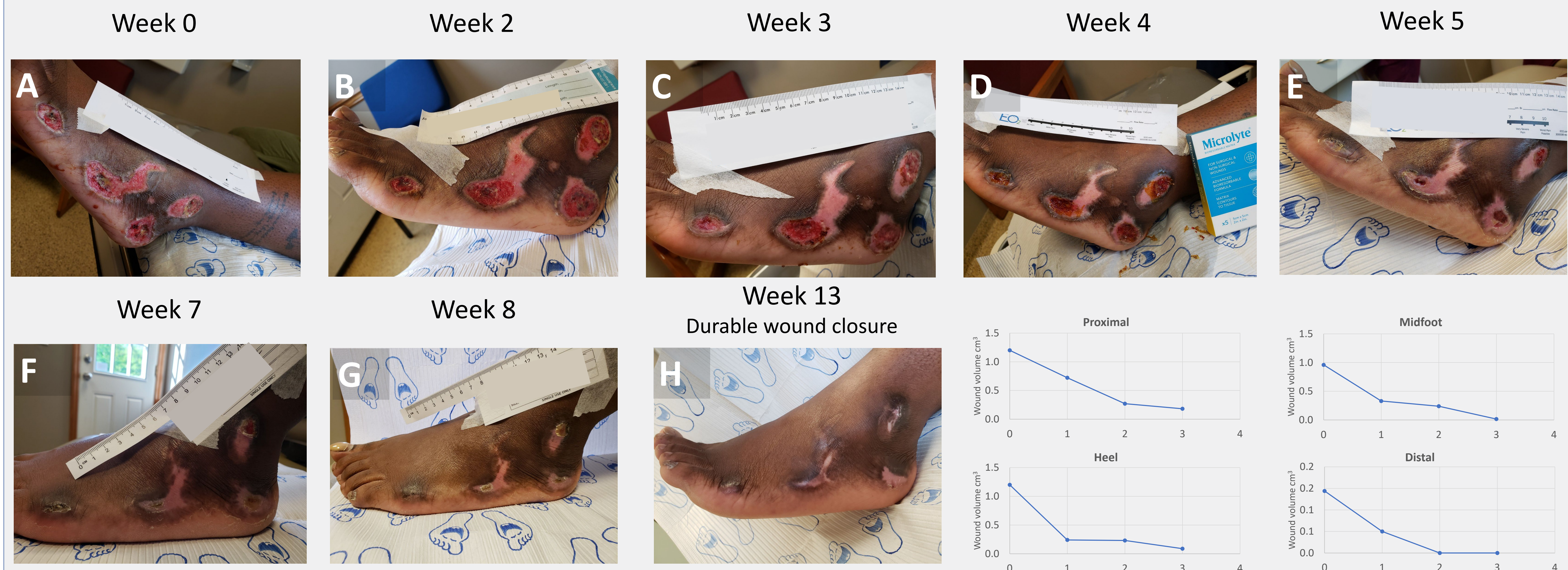


Figure 2: A-H healing progression of proximal, midfoot, heel and distal foot wounds sustained in a motor-vehicle accident.

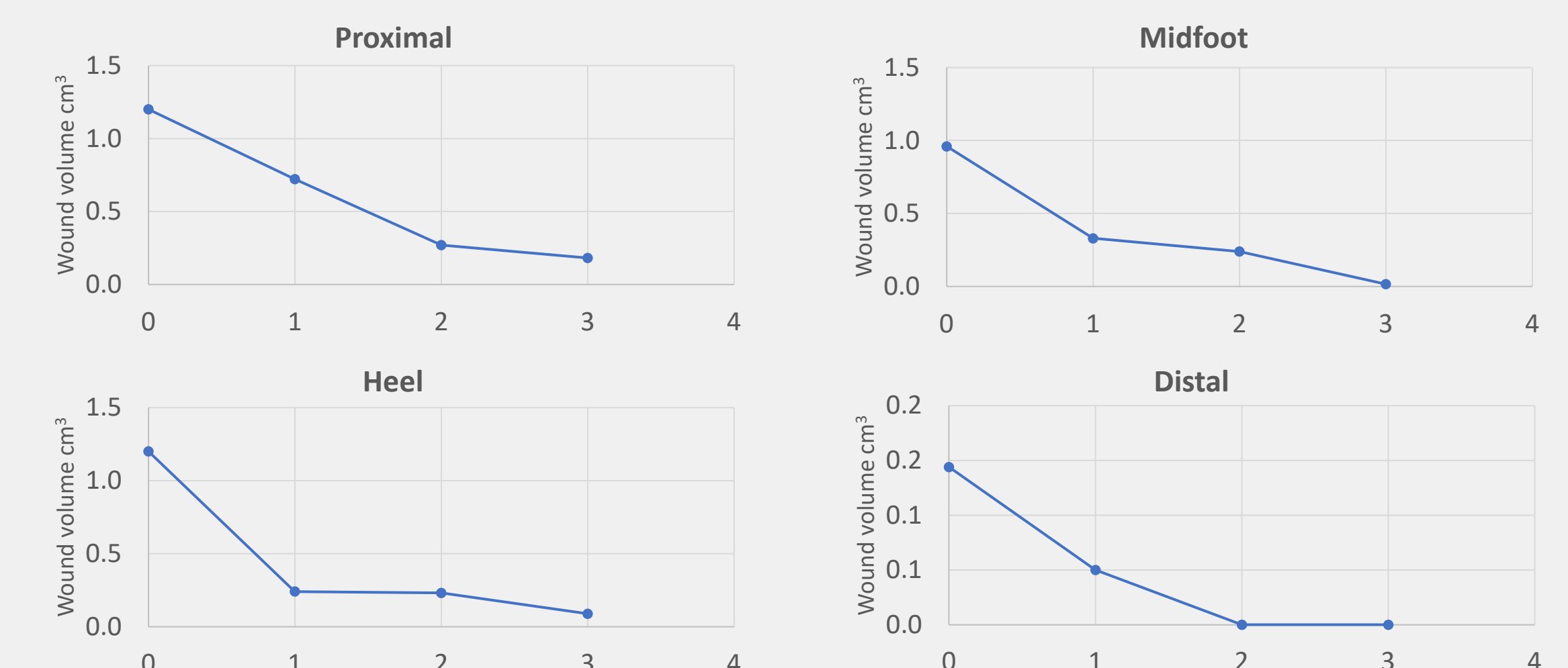


Figure 3: Graphical representation of healing trajectory of proximal, midfoot, heel and distal foot wounds

CONCLUSIONS AND FUTURE DIRECTIONS

As the main wound healing therapy, Microfilm Matrix was able to jump-start healing in deteriorating wounds and shows promise in accelerating wound closure and getting patients back to their daily activities as fast as possible.

REFERENCES

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*Microlyte® Matrix (Imbed Biosciences, Inc, Middleton, WI, USA).