



Utilization of Platelet Rich Plasma Reconstituted with Ascorbic Acid (Vitamin C) to Treat Hard to Heal Wounds in Patients with Diabetes

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Introduction

Diabetic wounds often can be difficult to heal related to various negative contributing factors such as pressure as well as poor nutrition. Diabetic patients are known to have a deficiency in Vitamin C. Our clinic wanted to find a product that was able to speed up and or jump start the healing process for these difficult to heal, stalled, chronic wounds that had been present often longer than 4 months. As presented at SAWC Fall 2024.

Methods

To solve this problem a Platelet Rich Plasma (PRP) system that integrated a reconstitution of Ascorbic Acid was utilized. This allowed not only for the topical application of PRP Hematogel, but also re-introduced Vitamin C back into the wound bed.

Results

80 y/o Male Diabetic patient with Diabetic wound on right lateral foot treated with traditional therapies to include debridement, offloading, collagen, alginate, compression, and antibiotic therapy. Started PRP and Ascorbic Acid system at week 19 and achieved closure after weekly application x 3.

75 y/o Male Diabetic patient who underwent Endoscopic vein harvest and developed hematoma post surgery. Hematoma evacuated, NPWT, Collagen, minimal compression all utilized prior. After wound stalled PRP and Ascorbic Acid System utilized for weekly applications x 7 and closure achieved.

Results

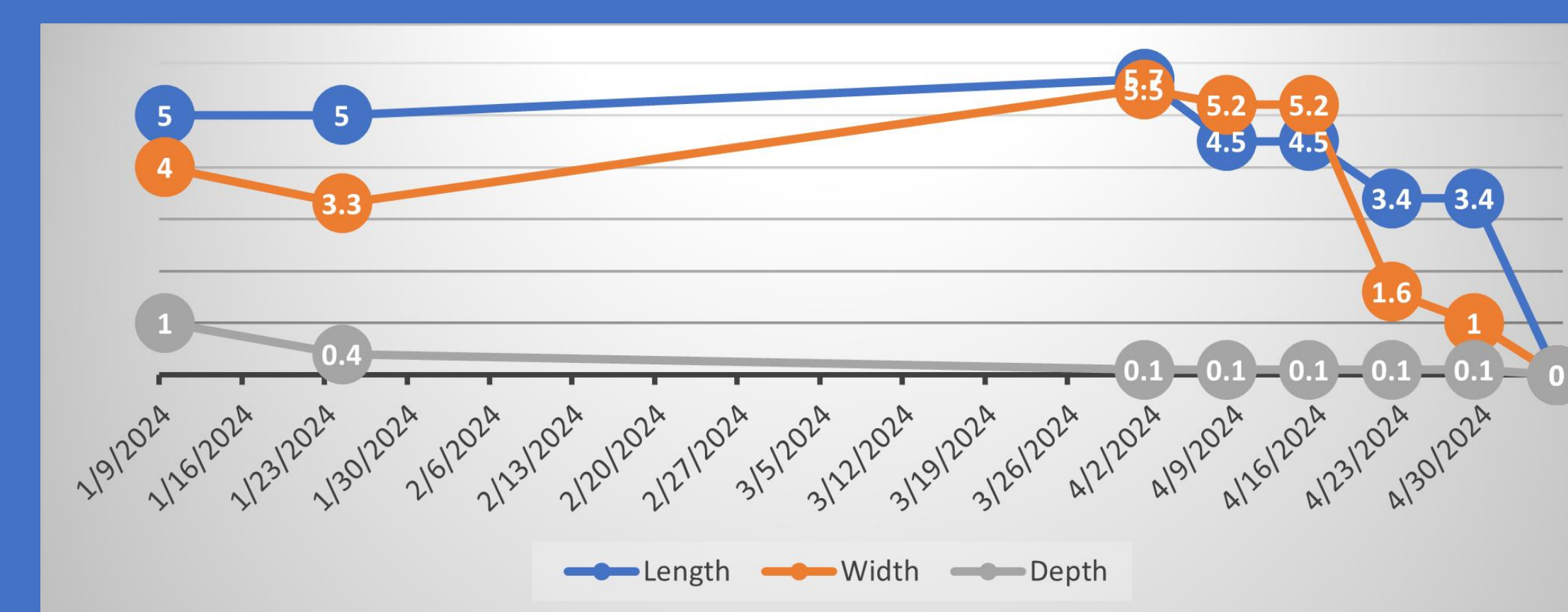
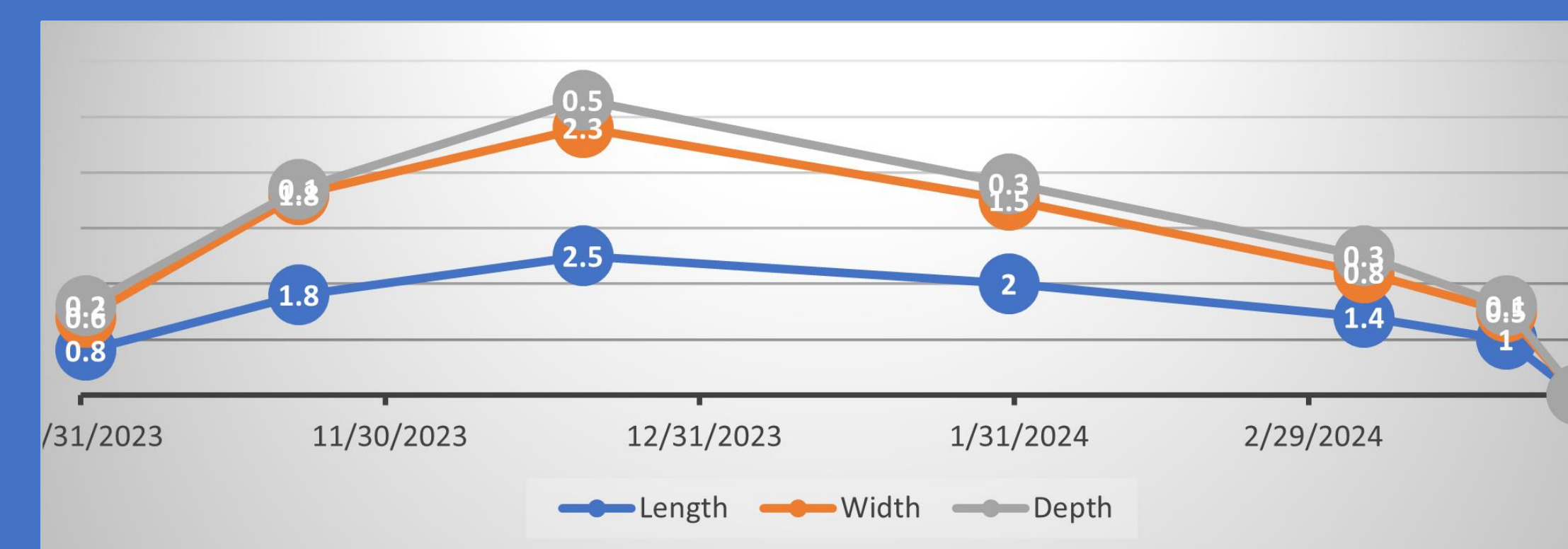
Week 19 prior to 1st application



Week 21 prior to 3rd application



Week 22 Full Closure



Week 1



Week 16 Post 3rd



Week 19 Post 6th



Week 20 Closure



Discussion

What was learned from this experience is that by utilizing a patient's own blood, using centrifugation to separate the platelets, and reconstituting them with Ascorbic Acid (Vitamin C), wounds that had been stalled for a significant period of time showed a large reduction in size after very few applications (1x per week). Continued utilization of PRP with Ascorbic Acid has yielded similar results to the cases shown in this poster.

References

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