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2022 Medical Research Day Posters

Oct 13th, 12:00 AM

Local Control of Pyoderma Gangrenosum

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Recommended Citation

Fontenot, Cameron J.; Maier, Mark A.; Taylor, Nicholas; Smith, Alison A.; and Lau, Frank, "Local Control of Pyoderma Gangrenosum" (2022). *Medical Research Day*. 26.

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Introduction

- Pyoderma gangrenosum (PG) is a rare, non-infectious, ulcerative dermatosis that worsens with debridement (pathergy)
- There is no consensus regarding the diagnosis, treatment, or management of PG
- Application of dehydrated amnion/chorion membrane (dHACM) following debridement has previously demonstrated successful wound healing

Objective: Characterize and compare PG wounds pre- and post-treatment with dHACM by identifying select transcriptomes

Methods

- Excisional debridement of the wound and application of dHACM
- Application of a split-thickness skin graft (STSG) for wound coverage within 2 weeks of treatment
- RNA isolation and reverse transcriptase polymerase chain reaction of wound samples from pre- and post- treatment

Results

Course of Treatment/Outcomes



Figure 1. A) PG wound post-debridement B) 8 days post-operation treating PG with pathergy using second dHACM application C) 15 days post-initial operation showing wound granulation and skin graft D) 20 days post-initial operation at follow-up.

- 43-year-old man presented with a single PG wound
- The wound was on the dorsum of his left foot to the level of the fascia with a TBSA of 3.24cm²
- A subsequent round of dHACM was necessary 7 days later (Fig 1B)
- A small wound appeared lateral to the primary lesion with undermining and purpura, which is indicative of active pathergy (Fig 1B)
- A STSG was placed 15 days post-initial treatment (Fig 1C)

Summary

- PG wounds were successfully treated using dHACM and split-thickness skin grafting
- This case is part of a clinical trial for pyoderma gangrenosum (NCT05120726)

Future Directions/Conclusions

- Provide insight into the etiology, pathogenesis, and treatment of PG with dHACM
- Transcriptome analysis is on-going with additional patient enrollment

References

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Acknowledgments

- A special thank you to Elizabeth Martin, PhD for contributing to this project
- Funding is provided by the Department of Surgery at University Medical Center, New Orleans, LA
- This research project was also supported by LSU Health Sciences Center, School of Medicine