Case Report: Managing Infected Post-ray Amputation of Diabetic Foot Ulcer through Combination Theraphy (Silver Antiseptic Spray, ChitoDebrid Gel and ChitoHeal Gel) in PKD Jasin

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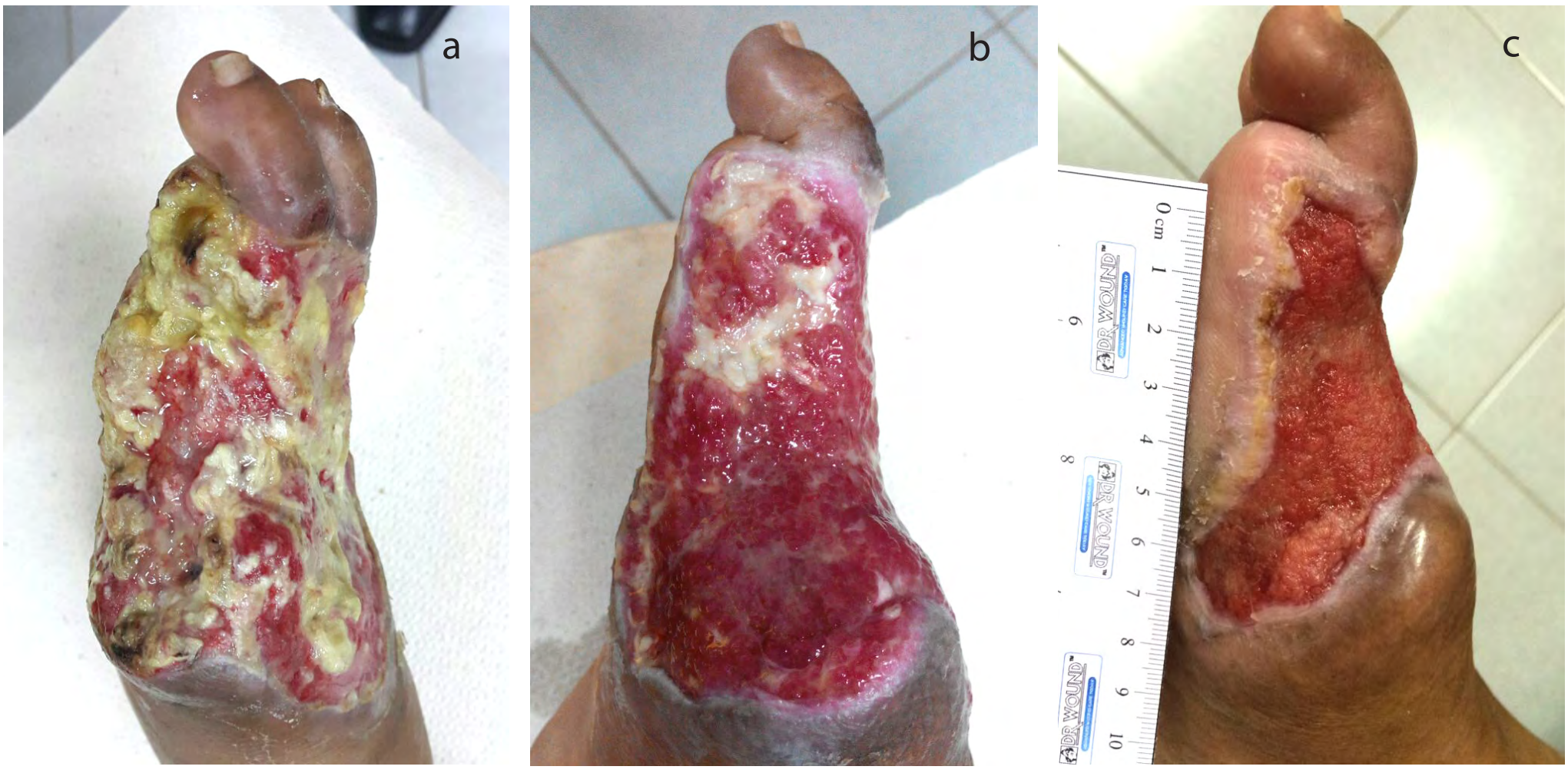

Figure 1: Infected post-ray amputation DFU in a 67 YO patient. Baseline (a), after 10 days (b) and 45 days (c).

Introduction

DFU are serious wounds that must be prevented through diligent care of feet and proper management of diabetes. In this case study, we present a 67 years old female patient with underlying Diabetes Mellitus (DM) who suffered from infected diabetec foot ulcer. Patient discharged from Hospital Besar Melaka and continue follow up at KK Umbai. Size of the wound and the diabetic control became the main issue for progress of wound healing.

Materials and methods

These materials were applied during the treatment.
Day 1-3
1) Water for irrigation as cleansing solution
2) Spray Silver Antiseptic Spray (SAS) generously
3) After 45 secs, apply ChitoDebrid Gel (CDG)
4) Use secondary dressings to cover the wound
Day 4 onwards
1) Spray Silver Antiseptic Spray (SAS) generously
2) After 45 secs, sprinkle ChitoPowder (CP)
3) Apply ChitoHeal Gel (CHG)
4) Use secondary dressings to cover the wound
5) Dressing changed every 2 days

Results

Slough was effectively removed. Positive granulation and cells epithelization can be observed clearly starting from day 10 onwards. Increasing area of peri wound lead to a faster wound closure. Wound completely closed within 56 days.

Discussion

Nanocolloidal silver in SAS expressed a great antimicrobial properties. Its active form of colloidal and nano size silver effectively helps to combat microorganism on the wound[1].

Chitosan biopolymer in CHG applied has a unique chemo-attractant properties, localizing macrophages, cytokines and other vital micro molecules involved. It also helps to provide moist environment for wound healing[2].

CDG used contains sodium alginate and proteolytic enzymes which promotes both, autolytic and enzymatic debridement. Slough and necrotic tissues can be easily softened and removed without involving any surgical procedure.

With the easy and effective usage of this combination therapy, the wound can be healed faster. Patient and caretaker will be able to perform dressing as well. Cost effectiveness and the psychological benefits for the patient are beyond calculation[3].

Conclusion

Combination therapy of SAS, CHG, and CDG is safe and effectively increased the wound healing rate, thus, lead to a significant cost savings in community settings.

References

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