

Comparison of an Enzymatic Debrider with Antibiotic Ointment in the Outpatient Care of Minor Partial Thickness Burns

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INTRODUCTION

- ❖ Outpatient management of partial thickness burns normally involves the application of an ointment, which may contain an antibiotic and is widely used in burn care.
- ❖ This clinical study has been designed to prospectively evaluate potential benefits of an enzymatic debrider in partial thickness burn wounds compared to antibiotic only treatment.

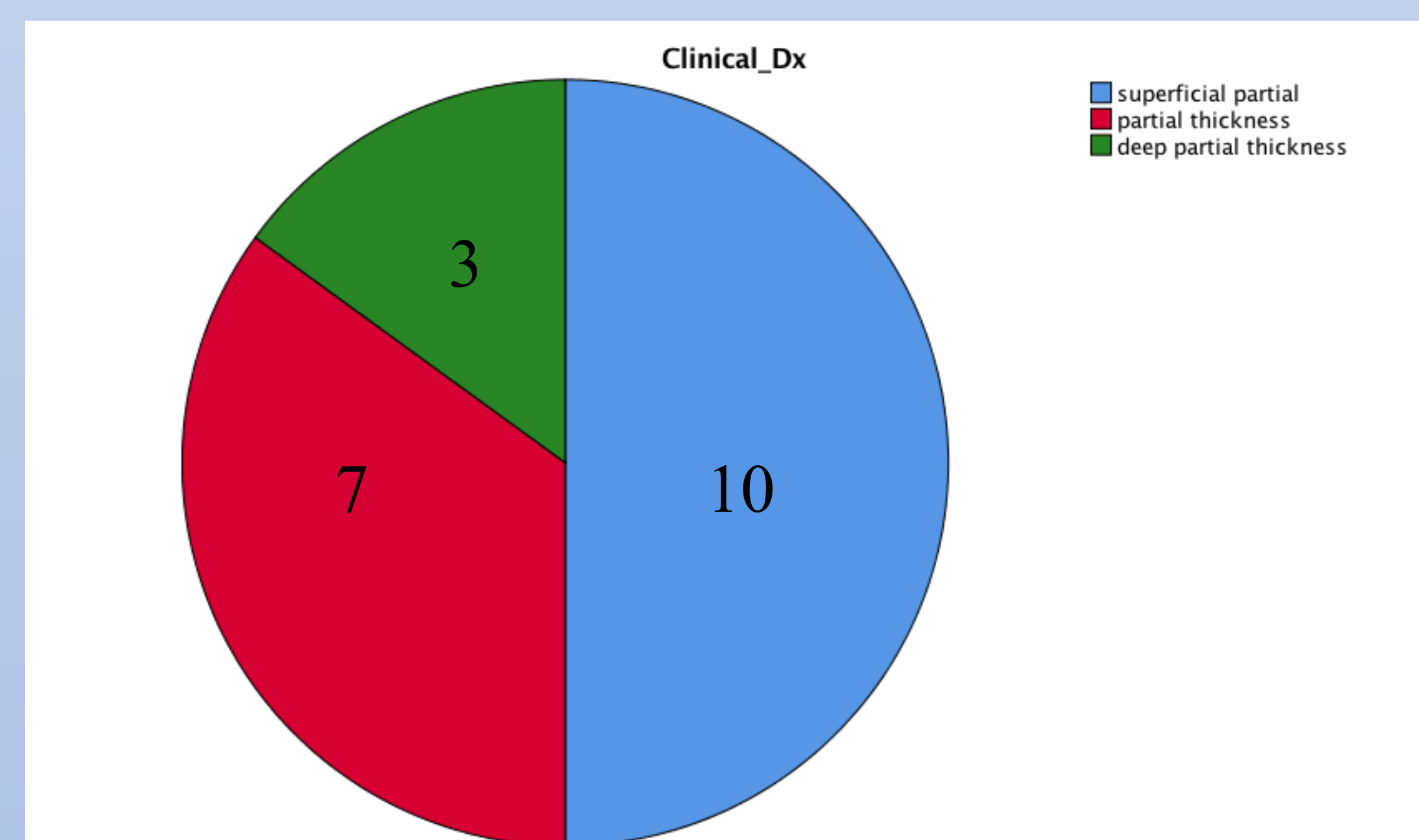
PURPOSE

- ❖ The primary purpose of this study is to compare an enzymatic debrider with a topical antibiotic ointment in the proportion healed at 3 weeks after initiation of treatment, and time to healing (in weeks).

METHODS

- ❖ Convenience sample of 20 subjects, aged 19-56, with an acute thermal burn injury less than 72 hours old, and less than 10% TBSA

N	20
Sex	
Male	15
Female	5
MOI	20
Thermal	
Location	
Upper Ext	14
Lower Ext	4
Abd	1
TBSA	
1% or <	15
2-10%	5



- ❖ Randomly assigned to Group 1 (enzymatic debrider) or Group 2 (topical antibiotic).
- ❖ Proportion of subjects healed after 3 weeks of treatment and the time to heal between the two treatment groups was analyzed using ANOVA.
- ❖ A t-test comparison between the enzymatic debrider and the topical antibiotic was performed.

RESULTS

Analysis of Variance comparing Time to Heal between Groups

	Time To Heal (days)	F	P value
Enzymatic Debrider N=6	13-31	.849	.374
Topical Antibiotic N=9	8-81		

- ❖ An analysis of variance comparing an enzymatic debrider and a topical antibiotic showed no *statistical* difference in time to heal (F=.849, p=.374).
- ❖ There was no *statistical* difference in burn wound closure between subjects receiving an enzymatic debrider compared to a topical antibiotic, $t(13) = .677$; $p = .510$.



CONCLUSION

- ❖ In partial thickness burn wounds, results from this study do not support a *statistical* difference in burn wound closure or time to heal between an enzymatic debrider and a topical antibiotic.
- ❖ However, there is *clinical significance* with subjects receiving the enzymatic debrider healing in 2-4 weeks, compared to 1-11 weeks in the topical antibiotic group.
- ❖ Lack of *statistical significance* was due to the extremely low sample size and under-powered study.
- ❖ Future research should compare the use of an enzymatic debrider compared to topical antibiotics in deep partial thickness burn wounds.