

Acute surgical wounds managed with minimally adherent silver dressings: A pilot study

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INTRODUCTION

- Minimally adherent silver dressings (MASD) are anti-microbial, non-irritating, provide a moist wound healing environment, and low cost.
- The purpose of this pilot, single-center, non-blinded randomized controlled trial was to quantify the outcomes of acute surgical wounds treated with MASD vs. standard of care dressings.

METHODS

- Thirty-two patients with acute wounds were randomized 1:1 to be treated with MASD once weekly or standard of care following surgical excision of skin and/or subcutaneous tissue between September 13, 2016 and November 28, 2017.
- The outcome variables included clinical infection, time to wound closure, and pain scores at dressing changes.
- Two independent, one-sided sample t-tests were performed to assess statistical significance.

RESULTS

- There was no difference in wound healing between SILVER MASD and standard of care.
- Dressing changes were less painful for wounds managed with MASD silver dressings.

CONCLUSIONS

The results of this study suggest that MASD are not less effective in wound healing compared to SoC while also providing the benefit of decreased pain at dressing changes. Therefore, minimally adherent silver dressings can and should be considered a viable option in the management of acute surgical wounds.

DISCUSSION

- The silver MASD reduced patient pain, the frequency of dressing changes, and the cost of wound care, making it a reasonable alternative to SoC.
- Silver MASD is a reasonable option for management of acute surgical wounds due to its non-occlusive, minimally adherent nature, and its innate soft, pliable properties.

FIGURES



Figure 1. Superficial acute surgical wound (A) with Xeroform dressing (B).



Figure 2. Superficial acute surgical wound (A) with Mepitel® Ag dressing (B).

TABLES

Gender	
Male	16 (64.0%)
Female	9 (36.0%)
Age in Years	45.6 (SD 18.4)
BMI	29.7 (SD 10.5)
Race	
African American	15 (60.0%)
Caucasian	8 (32.0%)
Hispanic	1 (4.0%)
Asian	1 (4.0%)

Table 1. Patient demographics

	MASD	SOC	P
NO. OF SUBJECTS	15	10	
DEEP WOUNDS	4	1	
SUPERFICIAL WOUNDS	11	9	
AVG. INITIAL WOUND SIZE (CM ²)	136.9	161.2	0.710
AVG. HEALING RATE	65.7%	64.1%	0.911
AVG. TIME TO CLOSURE (WKS)	4.4	6.0	0.151
AVG. VISUAL ANALOG PAIN SCORE	1.1	2.8	0.008
INFECTION RATE	6.7%	10.0%	

Table 2. Wound characteristics and results during follow up

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