

# Comparison of Healing of Lower Extremity Chronic Wounds with Silver Plated Cloth Dressings, Papain-Urea-Chlorophyllin Ointment and Hydrogel

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Sixty consecutive patients with chronic lower extremity wounds were treated with a newer version of silver plated cloth dressings\* moistened with hydrogel, papain-urea-chlorophyllin ointment\*\* or hydrogel alone\*\*\*. Dressings were chosen for comparison based on claims of their potentiating and maintaining granulation in healing wounds.

There were twenty patients in each group matched as to location, size of the wound, nutrition, presence or absence of diabetes, and ankle-brachial index.. All patients received maintenance sharp debridement and dressing changes. Treatments were continued for six weeks or until wounds were healed.

Silver dressings were applied after sharp debridement of necrotic and non-healing tissues with hydrogel applied over this and an inert porous dressing placed over this. Silver dressings were changed every five days to maintain moisture and debridement done as needed. The silver dressing was reused once and therefore was changed to a new silver dressing every 10 days. Maintenance sharp debridement of non- viable tissue was done every 10 days in this group as needed.

Wounds dressed with papain-urea-chlorophyllin ointment and hydrogel were done every two days after sharp debridement, if needed, covering with non-adhering porous petroleum gauze and inert porous gauze.

All wounds in edematous patients were treated with multi-layer compression dressings over the above dressings; and, there were three of these patients in each group.

All wounds were appropriately off-loaded as needed, cellulitis was treated with systemic antibiotics when necessary, all diabetic patients were in a diabetic maintenance program and nutrition was surveilled and maintained.

At the end of six weeks 15/20 wounds healed in the silver group, 7/20 healed in the papain-urea-chlorophyllin ointment group, and 7 healed in the hydrogel group. Cellulitis occurred twice in the silver group, 5 times in the papain-urea-chlorophyllin group and 6 times in the hydrogel alone group. Pain averaged 3/10 throughout this course in the silver group and 5/10 in the papain-urea-chlorophyllin group and hydrogel group. Pain and infection were notably less in the silver group. The newer version of silver plated cloth dressings is a very effective way to treat chronic wounds and achieve healing.

\* Silverlon™, Argentum Medical, LLC., Willowbrook, Illinois 60527

\*\* Panafil™, Healthpoint, Ltd., Fort Worth, TX 76107

\*\*\* Intrasite™, Smith & Nephew Inc., Largo, Florida 33779

## General References

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**Figure 1.** Left to right, progression of healing after debridement and use of silver cloth, far left, to right, healed. Wound occurred in a young child after a motor bike accident and was closed at injury, but follow up treatment not obtained for six weeks.



**Figure 2.** Use of silver dressing over chronic skin breakdown from mixed edema. Combined with multilayer dressings, we have found this to be an excellent way to treat this type of wound.



**Figure 3.** Below, healing wound after diabetic necrotic toe wound debrided and silver cloth/hydrogel applied.

Patient Population	Silver N=20	Hydrogel N= 20	PUC Ointment N=20
Age	31-72 years	30-71 years	29-65 years
Male	10	9	11
Female	10	11	9
Diabetes	10	10	10
Tobacco use	4	3	3
Renal failure	5	4	3
Ischemia ABI between 0.5 and 0.8	6	6	6
Wound areas	AV=14cc	Av=12cc	Av=11.5cc