HYDROGEL WAFER**/PASTE* WOUND DRESSING COMBINATION PROMOTES RAPID HEALING, COST EFFECTIVE OUTCOMES

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ABSTRACT

Increasingly managed care organizations are seeking wound care treatments that improve patients outcome, can be provided at minimal costs, are readily managed by patients and/or caregivers, and maintain the highest quality of life possible. Wounds in migrant farm workers and low socioeconomic populations tend to be severe, poorly managed, often long term, and severely affect the quality of life of both patient and caregiver. Traditional wound care management are costly, time consuming, disrupt the ability to work, painful, and debilitating, destroying quality of life. Physicians at a Rural Migrant Health Community Center sought a simple wound treatment that could be applied to a variety of eschar covered wounds that could not be surgically debrided. Treatment requirements were, in order, reduction of pain, effective outcome, simplicity, cost effectiveness. The following protocol was established as most effective: 1) cleanse wound with cleanser or distilled water, 2) apply **thin** layer of hydrogel paste*, 3) cover with hydrogel wafer dressing**, 4) change dressing every 2-4 days. All wounds presenting with eschar were treated with the above protocol. Wounds healed without amputation, scarring or follow up corrective surgery as is usually required.

Conclusion: The treatment protocol met all physician requirements. Patient acceptance was great due to significant decrease in pain, ease of application, and rapid healing. All wounds treated healed without complications. Physicians management time was significantly decreased as was overall cost of treatment.

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PURPOSE

To illustrate use and outcome of Hydrogel Wafer/Gel paste dressing combination as a cost effective, high quality outcome wound management technique on a variety of eschar-covered wounds.

RATIONALE

Increasingly managed care organizations are demanding healthcare outcomes that meet both high quality standards and decreased management costs. They seek wound care treatments that improve patient outcomes, can be provided at a minimal cost, are readily managed by patients and/or caregivers whenever possible, and maintain the highest quality of life possible. Wounds in migrant farmworkers and low socioeconomic populations tend to be severe, poorly managed, often long term, and severely affect the quality of life of both patient and caregivers. Traditional wound care management approaches (usually saline wet-to-wet or pharmacologic ointments) are costly, time-consuming, disrupt ability to work, painful, and debilitating, destroying quality of life. A treatment approach was needed that would address all of these concerns.

METHODOLOGY

Physicians at a Rural Migrant Health Community Center sought a simple wound treatment that could be applied to a variety of eschar-covered wounds that could not be surgically debrided. Treatment requirements in descending order were: reduce pain, effective outcome, simple treatment, cost effective. The following treatment protocol was established as most effective: 1) Cleanse wound with wound cleanser or distilled water, 2) Apply thin layer of hydrogel paste*, 3) Cover with Hydrogel Wafer Dressing** 4) Change dressing every 2-4 days. Patients presenting with pressure ulcers, non-healing dehisced surgical lesions or burns, received this treatment. Most patients received initial treatment elsewhere before coming to the clinic for care.

RESULTS

All wounds presenting at the Migrant Health Clinic with eschar were treated with the above protocol. The treatment approach was effective in meeting all physician and payor requirements. Additionally, wounds healed without amputation, scarring, or follow-up corrective surgery that is usually required.

CONCLUSION

The treatment protocol met all physician requirements. Patient acceptance was great due to significant decrease in pain, ease of application, and rapid healing. All wounds treated healed without complications. Physician managed time was significantly decreased as was overall cost of treatment per patient.

REFERENCES

* Intra-Site Hydrogel Paste (Smith and Nephew United Medical, Hull, U.K.) used for yellow slough eschar and burns; Hypergel Hypertonic Hydrogel (Monlycke Healthcare, Philadelphia, PA), used for dry black eschar.

** Elasto-Gel™, Hydrogel Dressing (Southwest Technologies, Kansas City, MO.) used for all cover dressings.

1. Krasner, D.L., *Chronic Wounds*: A Clinical Sourcebook for Healthcare, King of Prussia, PA: Health Management Publications, 1990.

2. Schwartz, S.I., et. al, *Principles of Surgery*, 6th edition, McGraw-Hill, New York, 1995.

CASE STUDY - 1

SJ, 48 year old diabetic; smoker living in household of smokers; arteriosclerosis. Previous amputation, RAKA after 4 surgeries removing part of leg gradually over 18 months. Non-healing wound on right heel presented to clinic as solid black ulcer that could not be crosshatched due to hardness. She had been in hospital and sustained large ulcer. Treatment for 10 weeks post hospitalization had been saline wet-to-wet t.i.d. Decision had been made by her surgeon that if there was no progress in two weeks to amputate BKA. Then she had a heart attack; a CABG was performed, harvesting a vein from the remaining leg. This leg incision also dehisced and necrosed. Wound progressed in size. Patient was sent to surgeon with above protocol outlined and a request to try treatment for two weeks. On follow-up visit he acknowledged that some slight progress had been made but he still felt that amputation was necessary. Patient elected to proceed with clinic treatment protocol. Pain at time of start of care had become so intense that morphine had become only medication that even partially relieved pain. She was able to stop morphine after about 48 hours and needed nothing else for pain related to ulceration during the course of treatment.

First picture was 2 weeks post SOC with Clinic protocol.

FOOT

9/5/95
2 weeks after start of care (from full dense, hard eschar)

11/24/95
Note granulation margins as slough lyses

1/10/96

4/26/96
Minimal scar discoloration

UND DRESSING COMBINATION
COST-EFFECTIVE OUTCOMES

CASE STUDY - 2

IM, 8 month old infant with scald burn. Treatment at emergency room with Silvadene® and gauze with instruction to mother to change dressing t.i.d. Mother presented at clinic 7 days after ER visit. Reported that infant had not stopped whimpering or screaming since; neither had slept. Initiated treatment and patient stopped whimpering and slept in about 20 minutes. On first return visit mother reported that they had both slept almost around the clock since. Unfortunately halfway through treatment period patient was told by physician not participating in study "the wound is healing well; I'll give you some supplies and you don't need to return." Finally patient was located. Mother reported that though wound had healed, she had run out of supplies several weeks before. She thought it would be O.K. to use what was given in ER. Scarring only occurred in center of wound where old treatment was resumed. Mother and baby were both miserable again during the last healing phases.

8/21/95
Granulation buds throughout

9/14/95
7 Day Post Surgery. 2 days after Start of Care. Note, gelatinous material covering wound

1/10/96

Note scar due to lack of sufficient supplies to close wound

CASE STUDY - 3

JD, 50 year old male diabetic sustained 2nd degree thermal burn from radiator fluid while trying to repair car engine; treatment in ER at Cedars Sinai in Los Angeles for cellulitis and burn. Treatment was Silvadene®, dry dressing b.i.d., and follow-up with regular physician. Presented to clinic about one month post burn. Treatment protocol initiated. Most remarkable to note is that wound has healed without thickening of tissue as would be associated with traditional scar tissue. This discoloration resolved over time so that burn site is almost unnoticeable.

9/21/95
Start of Care. 1 month post burn

11/10/95
Discoloration around wound does not have thick feel or scar tissue

12/14/95
Note: lightening of parameter where wound has already healed

2/29/96
About 2 weeks after closure. Note epithelium continues to lighten. No scar thickening evident

CASE STUDY - 4

EM 21 year old male sustained on the job injury. 2000 degree molten lead fell on shoe, going through shoe to foot. Sustained 2nd and 3rd degree burns. Treatment started three days after injury occurred. Note healing with discoloration and no scar, reported no pain after 24 hours of SOC.

11/15/96
Start of care, 3 days post injury

11/22/95
Day 8

11/29/95
Day 17

2/23/96
Closed 2/19/96

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