The Healing Effects of a 100% Sodium Carboxymethylcellulose (NaCMC) Dressing with Ionic Silver and Strengthening Fiber* on Unique Wounds at One County Health Care Delivery System

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Introduction
100% sodium carboxymethylcellulose (NaCMC) ribbon dressing with ionic silver and strengthening fiber provides absorption of wound exudate while maintaining a moist wound environment, minimizes pain during the application and at dressing change while helping to protect the periwound skin. Pain is a key consideration no matter the type of the wound or the age of the patient.

Objective
The 100% NaCMC ribbon dressing with ionic silver and strengthening fiber was evaluated on three different types of wounds to determine its ability to facilitate autolytic debridement of slough while maintaining a moisture balance in the wound bed and reducing the risk of maceration on fragile skin.

Methodology
The protocol for all wounds was the application of 100% NaCMC ribbon dressing with ionic silver and strengthening fiber as the primary dressing*, and gelling foam dressing** as the secondary dressing. Case One: outpatient received weekly dressing changes on a three year old unhealed skin graft site with keloid formation. Case Two: inpatient initially received twice a week dressing changes to an acute burn to a forearm, then weekly. Case Three: long term care resident initially received two times a week dressing changes then transitioned to weekly to a large skin tear to the posterior leg. This acute wound was colonized with several organisms including MRSA.

Case 1
39 year old male who had a three year old unhealed skin graft site with keloid formation.

Day 1: The wound measured 2.8 x 1.5 cm. A 100% NaCMC ribbon dressing with ionic silver and strengthening fiber applied as the primary dressing and a gelling foam dressing as the cover dressing.

9 Weeks: The wound measured 2.5 x 0.8 cm. The dressing protocol remained the same.

12 Weeks: The wound measured 2.2 x 0.7 x 0.1 cm.

17 Weeks: The wound measured 0.5 x 0.3. He was lost to service after this date.
Case 2

34 year old male patient who suffers from schizophrenia continuously attempts to burn his arms on the top burners. He was unable to tolerate frequent wound inspections or dressing changes.

Day 1: Appearance of wounds at the time of consult. 100% NaCMC ribbon dressing with ionic silver and strengthening fiber applied as the primary dressing and a gelling foam dressing as the cover dressing. This was changed twice a week during hospitalization then reduced to weekly dressing changes in outpatient clinic.

Day 4: Distal wound measured 5.0 x 2.0; Proximal wound measured 3.2 x 1.8. Protocol of care for the wound continued.

Six weeks: Proximal and distal wounds nearly healed.

Case 3

84 year old long term care resident with a large skin tear to the posterior leg. This acute wound was colonized with several organisms including MRSA.

Day 1: Slough covered most of the skin tear. Protocol of care included 100% NaCMC ribbon dressing with ionic silver and strengthening fiber applied as the primary dressing and a gelling foam dressing as the cover dressing. This was changed twice a week and then to weekly dressing changes.

10 Weeks: Wound healed

Results

In all 3 wounds the slough was debrided and healing progressed. Patients reported no pain or discomfort at application, when the dressing was in place or at dressing change. Healthy granulation tissue appeared and the wounds remained free of infection.

Conclusion

The protocol of care using 100% NaCMC ribbon dressing with ionic silver and strengthening fiber and the gelling foam dressing as the cover dressing was observed to provide painless application and removal, enhanced autolytic debridement and wound healing in all three patients. Minimal dressing changes were required.

Products:
*AQUACEL® Ag Ribbon Dressing with Strengthening Fiber
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