

STUDY ON THE EFFICACY OF TOPICAL SILVER PREPARATIONS FOR TREATING NON-HEALING ULCERS ABSTRACT

The topical antimicrobial agent silver has been used for hundreds of years in wound care. Recently a wide range of wound dressings that contain elemental silver or a silver-releasing compound have been developed which are easier to apply, provide sustained availability of silver, need less frequent dressing changes that have overcome some of the problems associated with the first silver preparations. Silver dressings maintain a moist wound environment and help in facilitation of autolytic debridement.

AIMS AND OBJECTIVES

TO study the efficacy of topical silver preparations in the treatment of non-healing ulcers

Comparison of results over the conventional normal saline dressing

METHODOLOGY

This is a randomized, comparative interventional study carried out in Tirunelveli Medical College Hospital from March 2017 to June 2018. The study was approved by the Institution ethical committee. The study group comprised of hundred patients with ulcers due to diabetes mellitus, wound infections and post-operative wound ulcers, traumatic ulcers, burn ulcers and venous ulcers. Patients were selected, randomized and divided into two groups.

- Group-A: 50 patients treated with topical silver dressing
- Group-B: 50 patients treated with conventional normal saline dressing.

RESULTS

The present interventional study involved 100 cases of non-healing ulcers of various origin that fulfilled the inclusion criteria.

- ❖ Majority of patients in the study were in the age group of 61-70 years.
- ❖ There were 48% females in study group and 50% females in the control group
- ❖ 34% of patients in the study group and 46% of patients in the control group had duration of ulcer from 13-16 weeks
- ❖ Majority of patients with non-healing ulcers had diabetic origin.
- ❖ 74% patients in the study group and 66% patients in the control group had diabetic origin.
- ❖ The most common site of non-healing ulcers in the study was the plantar aspect of the foot.

- ❖ 50% cases in the study group and 52% in the control group had ulcers in the plantar aspect of foot.
- ❖ Majority of patients had Grade 3 ulcers(wagners grading).
- ❖ 58% of patients both in the study and control group had Grade 3 ulcers
- ❖ The most common organism isolated from the wound in both study and control groups was Staph aureus
- ❖ The study group had significantly reduced slough and discharge at the end of 3 weeks(p value < 0.0001).
- ❖ There was significantly higher healthy granulation tissue formation in the study group (p value <0.0001).
- ❖ There was a significant difference in culture negativity at the end of 3rd week. (p value 0.046)
- ❖ There was a significant reduction in the wound size in the study group (p value < 0.0001).

Topical silver dressings

- reduce slough and discharge
- induces healthy granulation tissue formation
- improves pus culture sensitivity
- reduces wound size considerably

KEY WORDS: topical silver, normal saline, granulation, wound size, culture sensitivity, slough and discharge.