

Accepted Manuscript

Original article

Effect of Nano-Silver Hydrogel Coating Film on Deep Partial Thickness Scald Model of Rabbit

Peng Xi, Yan Li, Xiaojin Ge, Dandan Liu, Mingsan Miao

PII: S1319-562X(17)30224-3

DOI: <http://dx.doi.org/10.1016/j.sjbs.2017.09.002>

Reference: SJBS 1005

To appear in: *Saudi Journal of Biological Sciences*

Received Date: 20 June 2017

Revised Date: 16 September 2017

Accepted Date: 17 September 2017

Please cite this article as: P. Xi, Y. Li, X. Ge, D. Liu, M. Miao, Effect of Nano-Silver Hydrogel Coating Film on Deep Partial Thickness Scald Model of Rabbit, *Saudi Journal of Biological Sciences* (2017), doi: <http://dx.doi.org/10.1016/j.sjbs.2017.09.002>

This is a PDF file of an unedited manuscript that has been accepted for publication. As a service to our customers we are providing this early version of the manuscript. The manuscript will undergo copyediting, typesetting, and review of the resulting proof before it is published in its final form. Please note that during the production process errors may be discovered which could affect the content, and all legal disclaimers that apply to the journal pertain.



Effect of Nano-Silver Hydrogel Coating Film on Deep Partial Thickness Scald Model of Rabbit

Effect of nano-silver hydrogel coating film on deep partial thickness scald model of rabbit

Peng Xi[#], Yan Li[#], Xiaojin Ge, Dandan Liu, Mingsan Miao*

Department of Pharmacology, Henan University of Chinese Medicine, Zhengzhou 450046, China

[#]*Contributed equally to this work.*

Peng Xi[#], Yan Li[#], Xiaojin Ge, Dandan Liu, Mingsan Miao*

Department of Pharmacology, Henan University of Chinese Medicine, Zhengzhou 450046, China

[#]Contributed equally to this work.

* E-mail address: Miaomingsan@126.com

ABSTRACT

Objective: Observing the effect of nano-silver hydrogel coating film on deep partial thickness scald model of rabbit. **Method:** We prepared boiling water scalded rabbits with deep II degree scald models and applied high, medium and low doses of nano-silver hydrogel coating film for different time and area. Then we compared the difference of burned paper weight before administration and after administration model burns, burn local skin irritation points infection, skin crusting and scabs from the time, and the impact of local skin tissue morphology. **Result:** Rabbits deep II degree burn model successful modeling; on day 12, 18, high, medium and low doses of nano-silver hydrogel coating film significantly reduced skin irritation of rabbits infected with the integral value ($P<0.01$, $P<0.05$); high, medium and low doses of nano-silver hydrogel coating film group significantly decreased skin irritation, infection integral value ($P<0.01$, $P<0.05$); high, medium and low doses of nano-silver hydrogel coating film significantly reduced film rabbits' scalded skin crusting time ($P<0.01$), significantly shortened the rabbit skin burns from the scab time ($P<0.01$), and significantly improved the treatment of skin diseases in rabbits scald model change ($P<0.01$, $P<0.05$). **Conclusion:** The nano-silver hydrogel coating film on the deep partial thickness burns has a significant therapeutic effect; external use has a significant role in wound healing.

Keywords: Nano-silver hydrogel coating film; Deep degree burns; Topical; rabbits

1. INTRODUCTION

Burn and scald is common damage, which is caused by many factors such as physics, chemistry, radiation and so on. It is an extremely complex and traumatic disease (Deng et al., 2011; Muhammad et al., 2017; Rashid et al., 2017). Burn wound

Download English Version:

<https://daneshyari.com/en/article/8849805>

Download Persian Version:

<https://daneshyari.com/article/8849805>

[Daneshyari.com](https://daneshyari.com)