

ANTISEPTIC DRESSINGS: A COMPARISON IN A RANDOMIZED BLIND STUDY

R.Cassino¹, S.Cassino²

¹ICCS "Città Studi" Clinical Institute (Milan - Italy) ²San Raffaele Hospital (Milan - Italy)

Introduction: Silver is now considered the gold standard in the local treatment of infection; povidiodine gauzes is the best-selling dressing in Italy; so we decided to compare a new technological antiseptic dressing with one of the best silver dressings sold in Italy (Activated Charcoal with Silver) and with povidiodine gauze in infectious pressure ulcers.

Methods: This was a randomized blind study. We enrolled 15 patients with infectious pressure ulcers (according with the Cutting & Harding criteria) divided into three groups: 1) Povidiodine gauzes, 2) Activated Charcoal with Silver, 3) Silicon Dioxide with Ionic Silver and Chlorexidine spray powder (moist gauzes as secondary dressing). We evaluated the decreasing of the infection signs and the area reduction using Visitrak™ system. The investigator recruited the patient; an operator opened the envelope of randomization and, not seen, executed the dressing; at the control visit the operator removed the medication in the absence of the investigator who, called after, performed the evaluation; then he moved away, allowing the operator to change dressing. All assessment data have been held by the investigator; the medications data have been kept by the operator. All these data have been made visible at the end of the case, after the last evaluation.

The observation time was three weeks.

Results: The groups that used silver dressings had the complete resolution of infections in 90%: only one wound (group 2) had signs of infection at the end of the study. The wound area increased in 80% in the povidiodine group and 60% were still infectious. Group 3 showed no infection signs at the end of the study and an area reduction of more then 25%, versus 3.5% of group 2.

Discussion: The poor efficacy of Povidiodine gauze is very obvious: maceration, persistence of the signs of infection and increasing of the wound area in many cases. The lesions treated with silver dressings have defeated the infection within the observation time; the highlighted difference between the two groups is mainly in terms of quickness, which means reduced healing time, costs saving and improvement of the quality of life of the patients.

SIGNS OF INFECTION		
Products	Beginning of the study	End of study (3 weeks)
Activated Charcoal & Silver	6.0	0.6
Povidiodine Gauze	5.4	3.8
SiO ₂ Ag ⁺ Chlorex	6.0	---

Mean values of the number of infection signs (Cutting & Harding Criteria)

AREA REDUCTION (or VARIATION)	
Products	End of study (3 weeks)
Activated Charcoal & Silver	- 3.5%
Povidiodine Gauze	+ 7.4%
SiO ₂ Ag ⁺ Chlorex	- 25.6%

Mean values of the wound area reduction/variation

Clinical relevance: We think that is very important to give data about the best choice in the treatment of infectious pressure ulcers because an effective treatment can help us to achieve the complete healing in a very few time, allowing a better quality of life to the patients.

References:

- International Consensus. Appropriate use of silver dressings in wounds. An expert working group consensus. London: Wounds International; 2012
- Keast D, Lindholm C. Ensuring that the correct antimicrobial dressing is selected. Wounds International 2012;3:22-8.
- Ferrari M, Bignozzi CA, Dissette V. Antibacterial powders based on anionic silicon or titanium dioxide absorbed with pharmaceutically active cations. PCT/IB 2013/054647



ICCS

Centro Interdipartimentale per la Cura del
Piede Diabetico e Centro di Vulnologia



ICCS