

Holistic Effect of an Antimicrobial Gauze Dressing with a Claggett's Window

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Goals/Objectives

This case study exemplifies the holistic effect of wound management with antimicrobial gauze* for a non-healing chronic wound.

Purpose

On August 10, 2005, a 65 year old male presented to a community day care dermatology clinic with a Claggett's Window with GORE-TEX. This chronic wound was the surgical intervention to the patient's underlying diagnosis of malignant mesothelioma. Additionally, the patient's medical history included chronic renal impairment. The patient consented to a 12 week trial period where he received an antimicrobial gauze dressing.

Methods

During the 12 week trial, wound assessments were conducted at the dermatology clinic once a week. These weekly visits included wound measurements, clinical assessments, wound photography, and wound swab cultures were collected using the Levine method and sent to an independent Clinical Laboratory Improvement Amendments (CLIA) certified central laboratory. The patient's overall health status was also assessed, vital signs recorded and medication changes reviewed. Serum laboratory values were noted if available.

The antimicrobial gauze was aseptically administered as a daily dressing change and applied towards the rib cage, away from the organ space. Only the dressing most proximal to the wound was moistened with normal saline; the distal portion remained as dry sterile antimicrobial gauze.

Results

At baseline, the Claggett's Window's measured 7.0cm x 2.0cm x 12.5cm and remained static throughout the 12 weeks. Clinical assessments noted decreased odor and improved healing of peri-wound breakdown. Three additional non-study wounds were treated with the same antimicrobial gauze at the patient's request. These wounds healed within the twelve week study period. The amount of wound drainage was managed effectively during the trial, allowing dressing changes to reduce from twice daily to once a day. Wound swab culture data were unremarkable.

The patient verbalized to the clinic's nursing staff that he approved of the antimicrobial gauze dressing, describing the dressing as comfortable and reporting his pain level as "controlled." He also stated that the dressing better managed the wound drainage as compared to previous wound interventions. He attributed the improved wound management as assisting him in achieving as normal a standard of living as possible, giving the illustrative example of being able to pick up his grandchildren without experiencing copious drainage. When the

trial ended, the patient specifically requested to be allowed to continue to use the same gauze dressing.

At the conclusion of the 12 week trial period (November 2, 2005), the patient was prescribed daily dressing changes with povidone iodine and regular (non antimicrobial) gauze.

On March 8, 2006 the patient's blood work reported increased thyroid-stimulating hormone (TSH). Repeated blood draws in July, August and September 2006 demonstrated further rising levels, with the latter two TSH levels being > 100 Pmol/L. It was theorized that the increased TSH results were due to the patient's impaired renal function ineffectively clearing the povidone

iodine solution. On September 7, 2006, the patient was discontinued from the povidone iodine daily dressing changes and returned to the antimicrobial gauze dressing. One month later, his TSH serum level dropped to 42.36 Pmol/L, gradually returning to within normal limits.

Discussion/Conclusion

Chronic wounds have been related to decreased quality of life due to disruption of daily routine, pain and fatigue, restricted mobility, social isolation and loss of independence.¹ Therefore, chronic wound management incorporates several holistic factors, including quality of life and other physiological pathways.² This case study effectively illustrates how antimicrobial gauze dressing can contribute towards holistic wound management and improved quality of life.

REFERENCES

- 1 Enoch, S., Price, P. (2004). "Should Alternative Endpoints Be Considered to Evaluate Outcomes in Chronic Recalcitrant Wounds?" *World Wide Wounds*. [Online], 12 pages. Available HTTP: <http://www.worldwidewounds.com> [2008, April 9].
- 2 Ferris M.D., Frank D., Al Khateib M.H.A., M.S.N., Ahmad Abdullah, Fromantin, Isabelle et al. (2007). "Palliative Wound Care: Managing Chronic Wounds Across Life's Continuum: A Consensus Statement from the International Palliative Wound Care Initiative." *Journal of Palliative Medicine* 10 (1): 37-39; February 1, 2007.

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*Kerlix™ AMD Antimicrobial Gauze Dressing, Covidien, Mansfield, MA, 02048, USA.
GORE-TEX®, W. L. Gore & Associates, Inc., Elkton, MD, 21921, USA.

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