

INTRODUCTION Managing a malignant fungating wound remains a great challenge, because it does not only involve physical appearance of a patient but rather a complex integumentary of physical, emotional and personal dignity. These wounds often associated with pain, exudate, bleeding, and repulsive in appearance; with malodor as the most reported disturbing symptom¹. Malodorous wound may results in psychological disturbances such as depression, embarrassment, fear, guilt, revulsion and low self-esteem². Wound dressing using electrolyzed super-oxidized (ESO) solution and gel can act as antimicrobial and bacteriostatic agent³ that potentially reduces malodor. To the best of our knowledge, there is no clinical study yet involving ESO dressing in managing malodor of malignant fungating wound, although there were few reported on other types of chronic wounds⁴.



Electrolyzed Super-Oxidized Dressing (Hydrocyn™ aqua) for Malodor Control in Malignant Fungating Wound - A Case Study

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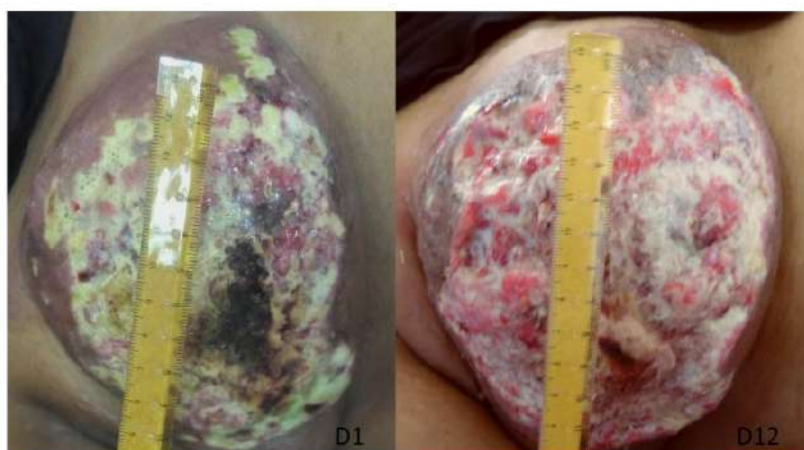
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CASE STUDY We reported a case of 43 years old Malay lady who was diagnosed with stage IV advanced right breast cancer with fungating wound that was persisted for two months. The wound was grossly ulcerated with size approximately 10x10 cm to the whole breast with local infection signs. The patient was in great distress, shame and pain, having the wound with fetid odor that almost unbearable. Standard of care dressing failed to remove the malodor.

METHOD Wound progression was assessed using Bates-Jensen Wound Assessment Tool (BWAT) form in three weeks duration. Additional numeric scale of odor from patient and clinician view was measured derived from Toronto Symptom Assessment System for Wounds (TSAS-W). Odor score was tested and documented on the first ten seconds upon dressing removal. Pain score was assessed using Pain Assessment Scales. Cleansing and soaking for at least ten minutes on every dressing change using ESO solution (Hydrocyn water) and primary dressing with ESO gel (Hydrocyn Aqua gel). Sharp debridement to remove slough and necrotic tissues was done whenever appropriate. Wound was closed using normal gauze and gamgee.

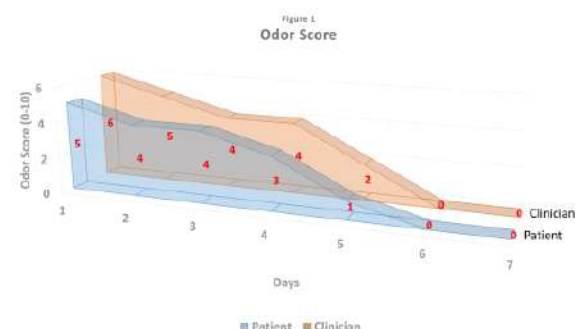
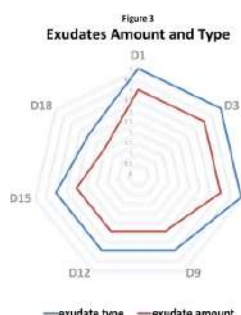
RESULTS The malodor reduced from second day of Hydrocyn application and significantly decreased from third day onwards until it was completely disappeared on the sixth day of visit (Figure 1). On overall wound assessment using BWAT, total score was reduced from 42 to 33 within three weeks of treatment (Figure 2). The exudates component from BWAT score list has shown as the most significant parameters improved (Figure 3). Pain score slightly improved from 8 down to 7 on overall assessment

DISCUSSION ESO Hydrocyn water and gel has completely removed the malodor started from day three to five of application. For this study, The BWAT was used instead of other measuring tools because it is readily available, more valid and reliable tool⁵. The TSAS-W score has a component of malodor scale from 0-10 and it was chosen due to its feasibility for statistical interpretation. Clinician malodor assessment also been introduced to improve inter-rater reliability of this study. All odor was scored for smell from first ten seconds after dressing removal to avoid olfactory nerve desensitization⁶. From the BWAT, exudates type and amount parameters has shown as having the most significant improvement from worst score (5) to improved (2). This outcome probably was executed by the hypochlorous acid (HOC1) component in Hydrocyn that theoretically will penetrate bacterial cell walls and destroy it from inside³. Clinically, the reduction of malodor will at least increase the quality of life of patient in condition when healing of wound is not the target. This is significantly helpful especially to help patient and caregivers in coping the distress during palliative care management.



CONCLUSION

Electrolyzed super-oxidized (Hydrocyn) solution and gel is effective and potentially a promising alternative in combating malodor in malignant fungating wound. This will provide some degree of psychological benefit to cancer patients and further will improve their quality of life.



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