Evaluation of Effect and Comparison of Superoxidised Solution (Oxum) V/S Povidone Iodine (Betadine): Points to Ponder

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We read the article “Evaluation of Effect and Comparison of Superoxidised Solution (Oxum) v/s Povidone Iodine (Betadine)” [1] with interest.

We would like to seek a few clarifications from the authors regarding the methodology and the results and would appreciate a declaration of any conflict of interest.

In the abstract, the authors mention “We *retrospectively* analysed the records of 200 patients with different types of wounds who attended Department of Surgery” which metamorphoses in the observation section to “The present study comprising of 200 patients *prospectively randomized* into two groups of 100 patients each was conducted.” No mention is made about the method of randomization into the two groups, whether any attempts were made to blind the observers, or the statistical tests employed to analyze the results, and what *P* value was considered significant.

The study includes wounds ranging from acute ulcers to intraperitoneal collections, and three of the eight graphs show impressive results of percentage decrease in wound size, periwound erythema, and pus discharge in acute abscesses. Three graphs deal with the reduction in wound size

in diabetic foot, venous ulcers, and Fournier’s gangrene, and the last two graphs show the percent increase in epithelization and granulation in burns and fistula-in-ano. However, no mention is made of the absolute number of patients in these subgroups. This makes it difficult to appreciate the differences between the treatment groups, if any. Furthermore, we are unable to understand how Betadine and Oxum were employed in fistula-in-ano or cellulitis. What was the concentration and method of use of Betadine for the lavage of the peritoneal cavity and whether such use is supported by literature?

The authors have mentioned “A standard grading in terms of percentage decrease in wound size, periwound edema/erythema, pus discharge and percentage increase in granulation.” There are a large number of wound grading systems described in the literature; for example, Wagner’s classification for diabetic foot ulcers, and we were unable to appreciate the use of an indigenous non-validated grading system chosen by the authors.

An element of bias is also introduced by the use of debridement on an “as and when needed” basis and can influence the rate of healing between the two groups.

References

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