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Letter to the Editor

Comment on "Photodynamic therapy in the treatment of basal cell carcinoma: A systematic review and meta-analysis"

Dear Editor-in-Chief,

Wang et al. [1] claimed that photodynamic therapy (PDT) was a useful method for the treatment of basal cell carcinoma (BCC), more efficient than placebo and with a similar efficiency to cryosurgery, imiquimod and fluorouracil. Although this study have been published in 2015, the results deserves a comment.

First, the study published by Foley et al. [2] was included in the analysis. Wang et al. considered that the trial compared PDT with placebo in the treatment of BCC, and regarded the placebo arm as non-PDT arm. However, we carefully studied the treatment part in the Foley's trial, and found that patients in both methyl aminolevulinate (MAL) group and placebo group had received PDT. Actually, Foley et al. compared MAL-PDT with placebo-PDT. Patients in the placebo-PDT group had been treated with placebo cream for 3 h, following illumination with broad-spectrum red light (75 J/cm^2, 570–670 nm). Although red light in the absence of photosensitizer would not cause any significant tissue effect, toxicities, including burning sensation of skin, erythema and skin pain, could not be ignored. Thus, Foley's study might not have met the inclusion criteria.

Second, Wang et al. reported that 1583 patients were enrolled in the analysis. However, the accurate number of included patients should be 1415 (see Table 1 in the article). According to the information provided in Table 1, the number of lesions might be 1656, rather than 1583. Moreover, in the complete clearance rate after treatment part of results, authors described that 667 patients in PDT group and 833 patients in non-PDT group were enrolled in the analysis of complete clearance. Actually, the "patients" should be replaced by "lesions" instead.

Third, Fig. 3 might show the overall complete clearance rate after PDT or non-PDT. However, we could not be sure how the authors extracted the data of overall complete clearance and whether the data extraction might increase the risk of selection bias. Accordingly, we suggest that subgroup analyses of clearance at 3 months, 6 months, 12 months and 5 years should be performed.

Fourth, in the abstract, the risk ratio of 5-year recurrence rate was 6.79 (95% confidence interval [CI]: 2.43–18.96) when PDT was compared with surgery. However, in Fig. 5 and the results part, the risk ratio of 5-year recurrence rate was 6.27 (95% CI: 2.21–17.75) in the comparison between PDT and surgery. The inconsistence might need to be corrected.

In summary, despite the shortcomings in Wang's meta-analysis, PDT is an effective and acceptable treatment for BCC [3]. However, further studies are warranted to confirm which modality of photosensitizer is the optimal agent in the PDT of BCC.

Declaration of Competing Interest

The authors declare no conflict of interest.

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