

Contents lists available at ScienceDirect

Journal of Ayurveda and Integrative Medicine

journal homepage: http://elsevier.com/locate/jaim



Correspondence

Wound healing effects of Bambusa vulgaris leaves



Dear Editor,

We read with great interest an article entitled "Preliminary investigation for wound healing and anti-inflammatory effects of *Bambusa vulgaris* leaves in rat" by Lodhi et al. [1]. The article is thorough and explanatory but we would like to add the following to expand the scope of this experiment for additional benefit in wound healing process.

Wound healing is a biological process which occurs naturally. Thus, healing is an inevitable outcome and wound healing is taken for granted. If one debrides the wound of non-viable tissue and repairs it in a physiologic manner, the normal phases of wound healing, that is reaction, regeneration and remodeling should proceed without difficulty within definite period of time [2]. However, infection is one of the leading causes for non-healing of wounds in addition to repeated trauma and ischemia. The presence of bacteria and bacterial products such as endotoxins and metalloproteinases can cause disturbances in this orderly scheme and affect each of the processes of wound healing [3,4].

It is clear from the study protocol that the authors have studied the effect of *B. vulgaris* leaves extract on freshly created incised and excised wounds that were not showing any sign of infection and were free from infecting organisms. As wound infection is one of the major obstacles in the healing process causing delay in wound healing, it is difficult to ascertain the efficacy of *B. vulgaris* in healing process of wounds, which are not infected with any organisms.

Authors of this article claim that the flavonoids of *B. vulgaris* have been documented to have antibacterial activity. We do agree with the statement that flavonoids are present in *B. vulgaris* leaves and they are known to have antimicrobial activity but in the present study no attempt has been made to study the antimicrobial property of this important medicinal plant either in vitro against common bacterial pathogens or in vivo against experimentally infected wounds.

The authors of this article have finally concluded that *B. vulgaris* leaves contain amino acids, vitamins and ascorbic acid and because of these reasons, the leaves have been reported to promote healing by earlier researchers. Authors of this article further add that these findings have been further substantiated by results of their study showing significant increase in the rate of wound contraction and enhanced epithelization. The authors also claim that their study reveals that one of the possible mechanisms of wound healing promotion is by its antioxidant property. We do agree with all the

statements made by authors of this article. We sincerely feel that though the *B. vulgaris* leaves extract was found to enhance the wound healing in incised and excised wounds produced on rat, their conclusion that the leaves extract of *B. vulgaris* accelerates cutaneous wound healing is not justifiable. This is because the healing in this study is limited to the non-infected wounds, which could heal naturally without any medication, if one debrides the wound of nonviable tissue and repairs it in a physiologic manner. Hence, it would be more meaningful to study its effect on wound healing process in infected wounds to obtain more justifiable and concrete conclusion.

We feel that it could have been more meaningful and contributory to enlighten the treatment of wounds with one of the most common modifying factors in wound healing, that is infection.

Conflict of interest

None to declare.

Source of funding

Nil.

References

- [1] Lodhi S, Jain A, Rai G, Yadav A. Preliminary investigation for wound healing and anti-inflammatory effects of *Bambusa vulgaris* leaves in rats. J Ayurveda Integr Med 2016;7(1):14–22. http://dx.doi.org/10.1016/j.jaim.2015.07.001.
- [2] Robson MC. Disturbances in wound healing. Ann Emerg Med 1988;17:1274.
- [3] Tarnuzzer RW, Schultz GS. Biochemical analysis of acute and chronic wound environments. Wound Repair Regen 1996;4:321.
- [4] Burke JF. The effective period of preventive antibiotic action in experimental incisions and dermal lesions. Surgery 1961;50:161.

Milind Davane, Basavraj Nagoba* MIMSR Medical College, Latur 413 531, M.S., India

* Corresponding author. E-mail address: bsnagoba@gmail.com (B. Nagoba).

Received: 17 May 2016 Received in revised form: 14 June 2016 Available online 6 August 2016

Peer review under responsibility of Transdisciplinary University, Bangalore.