

Retraction: A simple, flexible and readily applicable method of boundary construction to prevent leech migration

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Following investigation of allegations of professional misconduct, the Singapore Medical Council (SMC) has confirmed that the corresponding author, Chua SJ, had provided fictitious names as co-authors of this paper.

In view of the misrepresentation of authorship claims, the *Singapore Medical Journal* fully retracts this paper from its published record.

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A SIMPLE, FLEXIBLE AND READILY APPLICABLE METHOD OF BOUNDARY CONSTRUCTION TO PREVENT LEECH MIGRATION

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Dear Sir,

The use of medicinal leeches in plastic and reconstructive surgery is well-recorded for the alleviation of perfusion problems in skin and other tissue grafts.⁽¹⁾ It plays an important role in the prevention of tissue graft failure during the critical hours after an operation. While much of the literature has focused on the benefits and effectiveness of medicinal leech usage, this method can also cause adverse effects, such as local pain or itching, vasovagal attack, hypotension, impaired wound healing, allergies, superinfection and scarring. As a living organism, the medicinal leech also has a tendency to migrate. This migratory nature might complicate treatment and result in decreased patient satisfaction if it crawls into body orifices and wound incisions.⁽²⁾ Previously described methods to contain the medicinal leech included suturing⁽³⁾ and the usage of a cup⁽⁴⁻⁶⁾ to restrict the movement of the leech. However, these methods often require training and familiarisation before they can be applied effectively.

We would like to share a simple, intuitive method to prevent leech migration on horizontal surfaces. In this method, the surgical team first identifies the site requiring leech therapy and demarcates the region in which the leech should be placed with a surgical marking pen. A petroleum-impregnated gauze (e.g. XerofoamTM), previously reported to be repulsive to leeches⁽⁷⁾ and commonly used in plastic and reconstructive surgery, is then placed along the lines which were previously drawn, to form a boundary. The effectiveness of this method is seen in a previous study⁽⁸⁾ which compared the formation of leech boundaries with Xerofoam against cotton gauze and found that the Xerofoam boundary method provided a lower incidence of leech migration, as compared to a cotton gauze boundary, and a high health provider and patient satisfaction score.

It should be noted that the limitation of this described method is that it may only be used on a horizontal surface. Should the flap be in a non-horizontal position, the leech may unlatch, fall off and latch on elsewhere, without traversing the barrier. If a similar method is to be used on a non-horizontal surface, paraffin may need to be applied to the entire body surface and the treated area. Additionally, the Xerofoam dressing may dry out and hence requires replacement for the method to be effective in preventing leech migration. Future studies on this method of leech migration prevention could include the use of other common hypertonic substances, such as salt.

Yours sincerely,

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