

Provided for non-commercial research and education use.  
Not for reproduction, distribution or commercial use.



(This is a sample cover image for this issue. The actual cover is not yet available at this time.)

This is an open access article which appeared in a journal published by Elsevier. This article is free for everyone to access, download and read.

Any restrictions on use, including any restrictions on further reproduction and distribution, selling or licensing copies, or posting to personal, institutional or third party websites are defined by the user license specified on the article.

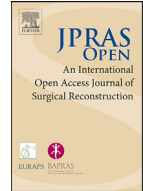
For more information regarding Elsevier's open access licenses please visit:

<http://www.elsevier.com/openaccesslicenses>



Contents lists available at ScienceDirect

JPRAS Open

journal homepage: [www.elsevier.com/locate/jpra](http://www.elsevier.com/locate/jpra)

## Correspondence

### Scrubbing sponges as skin graft dressing: Safe, simple and quick

Dear Sir,

Skin grafting is a reliable and commonly used technique to cover skin defects due to multiple etiologies.

The most common and used skin-graft dressing is the well known “tie-over dressing”, made of sterile gauzes or sterile sponge, on the top of a tulle gras sheet, stabilized with loop sutures.

The use of surgical sponge provides homogenous pressure over the graft reducing the risk of complications such as hematoma or seroma formation between the skin-graft and the recipient bed. Furthermore, the residual povidone-iodine in the sponge is an anti-infection agent, so it may protect the skin graft from bacterial colonization.<sup>1</sup>

Here in, we present a technique for full-thickness skin graft dressing, using a surgical scrub sponge (Figure 1), which is squeezed to partially remove the povidone-iodine and fixed by skin surgical staples.

Firstly, we secure the skin-graft to the recipient bed using a simple interrupted suture plus quilting suture in the middle.

After that, we prepare the sponge which consists in three steps: the first one is to remove it from the brush, the second one is to squeeze the sponge, then the thickness of the sponge is reduced. So the sponge is cut according to the size of the defect.<sup>2</sup>



**Figure 1.** A sterile povidone-iodine soaked scrubbing sponge.

<https://doi.org/10.1016/j.jpra.2020.02.004>

2352-5878/© 2020 The Authors. Published by Elsevier Ltd on behalf of British Association of Plastic, Reconstructive and Aesthetic Surgeons. This is an open access article under the CC BY-NC-ND license.

(<http://creativecommons.org/licenses/by-nc-nd/4.0/>)



**Figure 2.** Scrubbing sponge fixed with staples over a skin graft.

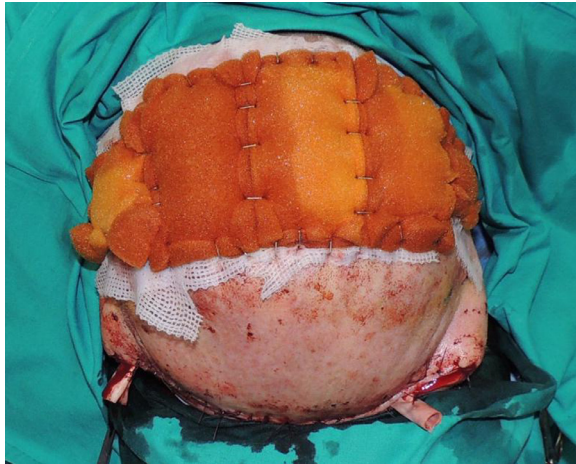
Between the sponge and the wound bed we always use a “tulle gras sheet” in order to create an interface between them and therefore to have an easier removal of the dressing.

Then we fixed the sponge with skin surgical staples (Figures 2 and 3).

The use of this technique provides many advantages: low cost, appropriate protection of the graft and the pressure is evenly distributed. Furthermore it gives an antibacterial shield thanks to the residual povidone-iodine in the sponge. Lastly it is a fast technique and reduce the patient post-operative discomfort.

This method, although effective, has disadvantages: once the tie-over dressing is in place, the surgeon cannot easily visualize the graft site to check for complications that may lead to partial or total graft loss.<sup>3</sup>

In conclusion, the combination of sterile scrubbing sponges with skin surgical staples can be an affordable, time saving and reliable alternative to the commonly used sterilized rubber foam fixed by suture for skin graft tie over dressing.



**Figure 3.** Four scrubbing sponges stapled together in order to fit over the skin graft.

### Declaration of Competing Interest

None.

### References

1. Sapountzis S, Chantes A, Kim JH. Use of surgical sponge with running sutures for securing full-thickness skin graft. *ISRN Dermatol*. 2011 VolumeArticle ID 470921, 3 Pages doi:10.5402/2011/470921.
2. Zannini M, D'Apprecida Sants Machado Filho C, Timoner F. Surgical sponge as a pressure ressing for skin grafts. *An bras Dermatol Rio de Janeiro*. 2004;79(3):359–362 maio/jun..
3. Egan CA, Gerwels JW. Surgical pearl: use of a sponge bolster instead of a tie-over bolster as a less invasive method of securing full-thickness skin-grafts. *J Am Dermatol*. 1998;39:1000 -1.

Fabrizio Schönauer  
Andrea Florio  
Luigi Sorbino

Francesco D'Andrea  
Italy

Department of Plastic and Reconstructive Surgery, Federico II University Hospital, Via Pansini 5, Napoli,

E-mail address: [luigi.sorbino@gmail.com](mailto:luigi.sorbino@gmail.com) (L. Sorbino)

Received 14 January 2020  
Accepted 24 February 2020