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Letter to the Editor

# A novel method to prevent tissue desiccation during burn surgery: Saline spray

*Dear Sir,*

It is a very well-known fact that non-keratinized tissues tend to desiccate easily during the surgical procedures when they are exposed to atmospheric air, room temperature and the heating effect of surrounding lights of the operating room. It is particularly true in long lasting procedures or in interventions exposing large surface area of the body tissues like in burns. As also predictable, drying of the tissues has a deleterious effect on viability of the involved cells. It is therefore of common practice to wet the exposed tissues with saline soaked sponges or saline irrigation. Burn surgery, microsurgery, and craniofacial surgeries are only some of the examples of plastic surgery practice that we routinely irrigate the surgical fields several times. Copious amount of irrigation and wet sponge application is sometimes bothersome as it may cause a wet surgical field and draping.

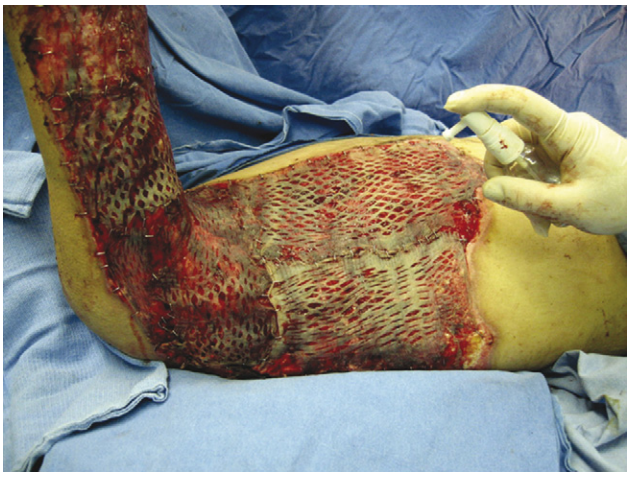

**Fig. 1 – Use of spray bottle during a burn grafting surgery.**

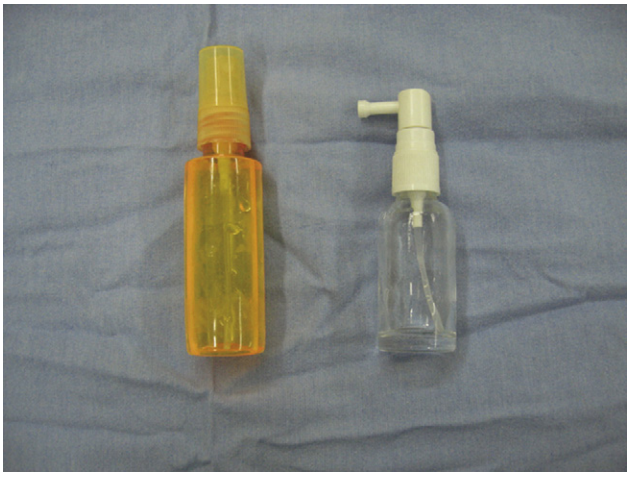

**Fig. 2 – Examples of spray bottles.**

To ease prevention of tissue desiccation and minimize the unfavorable results of soaked gauzes or frequent use of continuous saline irrigation, a saline spray device has been used by the authors for a long time which is also a common application in Wellington Regional Plastic, Maxillofacial and Burns Unit in New Zealand.

On review of the related literature, spray devices filled with solutions of thrombin, alpha adrenoreceptor agonists or adrenaline have been used during surgical procedures mostly for controlling blood loss but also for easier skin graft harvesting [1–3]. Similar spray bottles that can be sterilized for clinical use can be filled with sterile saline solution and employed for prevention of the tissue dessication (Figs. 1 and 2). An empty local anesthetic spray bottle is a cheap and helpful choice.

We think that using a simple spray bottle filled with saline is an easy and effective method to avert wound surface desiccation especially during microsurgery, flap surgery and skin grafting.

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0305-4179/$30.00

doi:10.1016/j.burns.2007.01.008