

COMPELLING COMMENT

Overcoming the Pitfalls of External Bolsters on Nasal Alar Skin Grafts Using Intranasal Dental Rolls

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Bolsters enhance contact and restrict movement between the graft and wound bed, preventing hematomas, facilitating nutrient diffusion, and avoiding the shearing of fragile anastomosing vessels.¹ Unfortunately, external bolsters can be counterproductive on the nasal ala because the downward pressure they exert can bend and buckle the ala. This paradoxically promotes the formation of a clot-filled gap between the graft and wound base, distorting the alar rim's contour and collapsing the nasal valves, which may become permanent as healing proceeds and scar formation occurs. On distal alar locations, as little as 50% of a bolster's circumference can be secured with tie-over sutures because there is no tissue beyond the alar margin for the suture to grab onto. Consequently, the bolster risks becoming loose and moving, which in turn disturbs the graft.

Several materials commonly found on sterile surgical trays have been ingeniously deployed as bolsters on the surface of grafts.² Here, we report a novel application of dental rolls, whereby their elongated shape, soft texture, and ability to resist distortion are harnessed to make them the ideal accessory for alar skin grafts. Snuggly-packed intranasal dental rolls exert an outward force that facilitates stable contact between the

wound base and the graft, preservation of the alar rim's natural shape, and patency of the nasal valves (**Figure 1**). As such, intranasal dental rolls act as scaffolds for proper healing and tissue remodeling during the critical post-surgical period, providing the advantages of external bolsters without the drawbacks. In addition to replacing or complementing external bolsters, dental rolls can stop trauma-induced epistaxis (e.g. from through-and-through tacking sutures) and can be coated with petrolatum or antimicrobial ointments for ease of insertion and infection control in this frequently MRSA-colonized area.

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Figure 1. (A) Full thickness skin graft with intranasal dental rolls in lieu of an external bolster and (B) Excellent post-operative graft survival, alar contour, and nasal valve patency