

A “Lilliputian” Technique for Rapid and Efficient Securing of Bolster Dressings Over Full-Thickness Skin Grafts

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A bolster dressing is traditionally used to secure a full-thickness skin graft to its recipient bed. The use of this pressure dressing immobilizes the graft to the bed, reducing movement, dead space, hematoma, and seroma formation. The established method of attaching the bolster dressing is using multiple tie-over sutures.^{1–3} This technique involves placement of many paired, interrupted sutures on opposite sides of the bolster that are then tied, two at a time, to one another over the dressing. First a simple interrupted suture is placed, leaving long tails that are clamped and left aside. This process is repeated directly across from the initial suture and again at several points along the bolster circumference (12 o'clock, 3 o'clock, 6 o'clock, and 9 o'clock). Finally, after all of the sutures are placed, they are unclamped and tied over the top of the bolster in a radial spoke pattern. This method can be time consuming and labor intensive during the application and removal of the suture, wasting critical time in a busy surgical practice.

We present a rapid, efficient, and secure method of applying a bolster dressing that allows for quick suture placement and removal. Our method involves a continuous suture and does not require placement of multiple individual sutures. After the skin graft has been sutured in place, the bolster dressing should be secured using a nonabsorbable suture such as polypropylene or nylon. We traditionally use 4-0 polypropylene for all of our bolsters. The needle is inserted roughly 3 mm from the bolster, and a simple

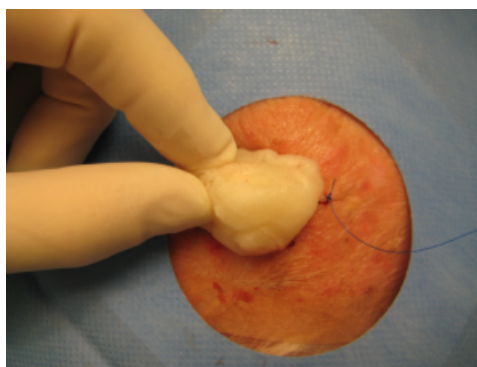


Figure 1. The initial simple interrupted suture is placed without being cut from the needle.

interrupted stitch is placed, but the suture is not cut from the needle (Figure 1). The suture is then brought over the graft and inserted directly across from the original stitch (Figure 2). This suture is again carried over the graft and inserted at a point skewed approximately 30° from the original insertion point. This process is repeated several times from side to side until the bolster is secured in place (Figures 3 and 4). To change direction, a bite can be taken through the top of the bolster at the center. A second continuous suture can be placed to further secure the bolster and to provide support if the bolster is too large for the length of the polypropylene suture (Figure 5). Conceptually, this technique resembles the tie-down of Gulliver by the Lilliputians in Jonathan Swift's *Gulliver's Travels*.

The main advantages of this technique are to provide speed and efficiency in applying the bolster

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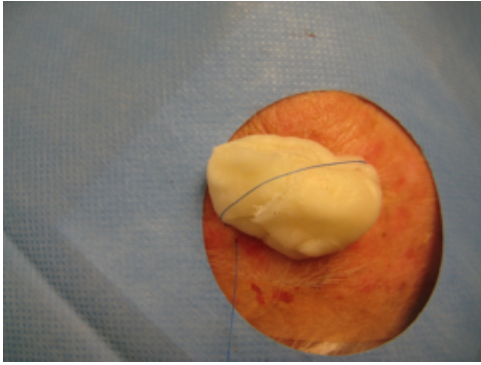


Figure 2. The suture is brought over the bolster and inserted directly across from the first stitch.

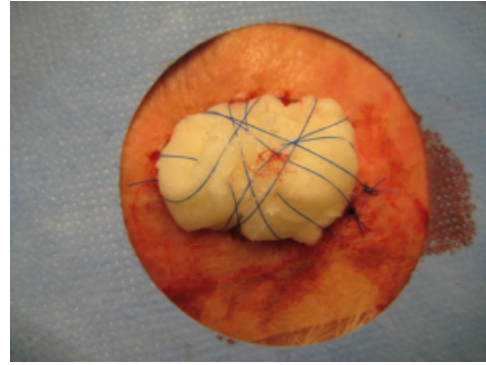


Figure 5. A second continuous suture can be placed if the bolster is too large for the length of a single suture.

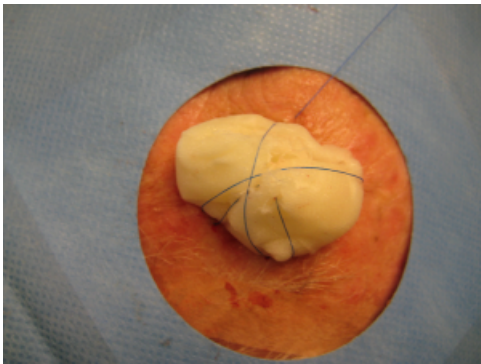


Figure 3. The process is repeated over and over with reinsertion of the needle at approximately 30° from the prior suture.

dressings. This bolster can be applied in less than 1 minute. We have found it to be simple to learn and perform and favor its use in securing bolster dressings.

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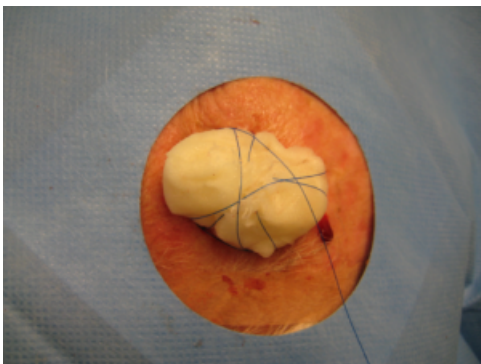


Figure 4. This “Lilliputian” technique is repeated until the bolster is secure.

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