

Purse-string suture for ear lobule reconstruction: A novel solution



Allison Rogers Paine, MD, Elizabeth M. Billingsley, MD, and Charlene Lam, MD, MPH
Hershey, Pennsylvania

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SURGICAL CHALLENGE

An ear lobule defect can be a complex challenge for the reconstructive surgeon. However, the ear lobule is a common site for skin cancers to arise. Although flap closures can be considered in this area, a purse-string suture, often combined with a linear layered closure, is often an excellent solution for reconstruction.

SOLUTION

The major considerations of any reconstruction are to maintain appropriate function of the region without causing distortion of nearby anatomic structures and reduce postoperative morbidity, healing time, and risk of infection. For the cases in [Figs 1 and 2](#), a simple combination of linear and purse-string closure was chosen to close a large defect and maintain the function and structure of the ear lobule. Although some shortening of the repaired ear lobule occurs, the advantages of primary closure and preservation of ear lobule contour makes this solution a good option for similar surgical or traumatic defects.



Fig 1. Mohs defect, closure, and long-term outcome in a patient. A 5 × 2.5-cm full-thickness defect is repaired with a linear layered closure and purse-string suture.

Many solutions for ear lobule reconstruction involve more complex rearrangement of tissue. The purse-string closure is a simple, time-efficient technique in which a running subcuticular suture is placed circumferentially and then tightened like a drawstring purse. It can be used in combination with flaps, grafts, or secondary

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Correspondence to: Allison Rogers Paine, MD, Department of Dermatology, Penn State Health Milton S. Hershey Medical

Center, 500 University Dr, Mail Code HU14, Hershey, PA 17033.

E-mail: allison.s.rogers@gmail.com.

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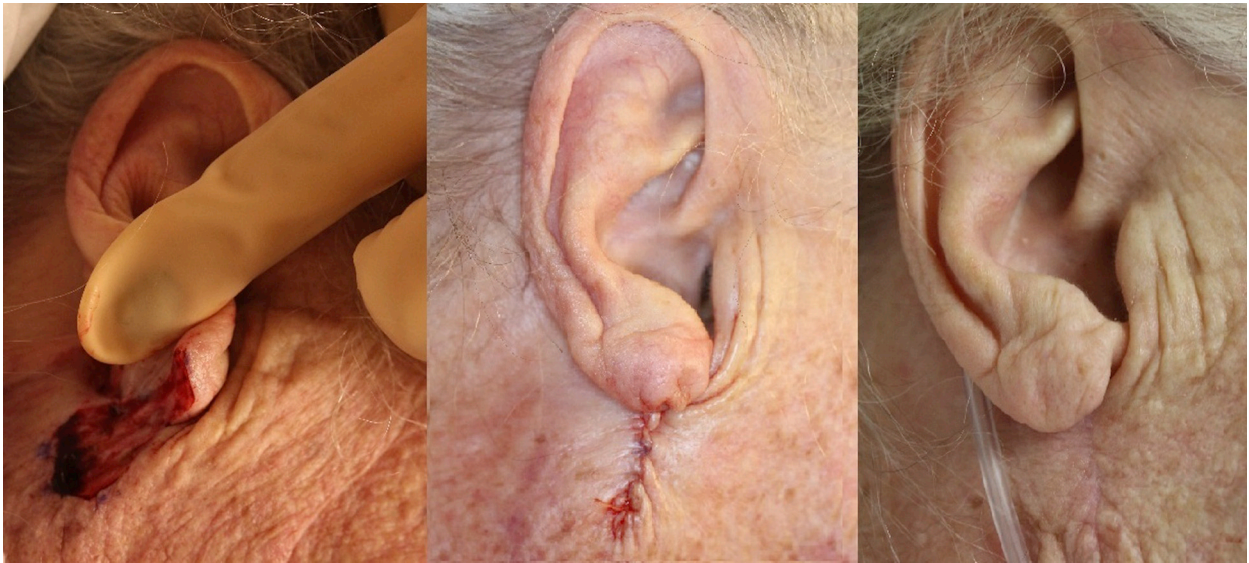


Fig 2. Mohs defect, closure, and long-term outcome in another patient. A 3.5 × 2.5-cm full-thickness defect is repaired with a linear layer closure and purse-string suture.

intention healing,¹ but in similar cases of ear lobule defects, it can be used alone or in combination with linear closure. Previous publications have addressed the purse string for partial-thickness earlobe defects, but it is also a simple yet elegant solution for full-thickness lobe defects.²

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