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Pre-emptive purse-string suture: A novel technique to minimize bleeding risk

Rachael Hagen, BS, Neal Shah, PhD, PharmD, Ahmed Yousaf, BA, Erica Ghareeb, MD, Zachary Zinn, MD

Department of Dermatology, West Virginia University, 64 Medical Center Dr, Morgantown.

Keywords

bleeding risk; hemostasis; punch biopsy; purse-string suture; round lesions

SURGICAL CHALLENGE

Providing immediate hemostasis after punch biopsy can be challenging on patients with thrombocytopenia or other coagulopathies.

SOLUTION

We introduce a technique to quickly provide hemostasis and minimize bleeding risk by placing a purse-string suture before performing a punch biopsy. The purse-string suture technique is a simple and quick procedure used to close circular lesions.¹ Under local anesthesia, a continuous, nonabsorbable intradermal suture is placed approximately 1 to 2 mm outside the projected punch biopsy site (Fig 1, A and D). A punch biopsy is then performed inside the perimeter of the previously placed purse-string suture (Fig 1, B and E). The hanging suture ends are immediately tied after the punch biopsy, thereby closing the surgical wound without delay (Fig 1, C and F).

Implementing the purse-string suture before biopsy is ideal for providers practicing without surgical assistants or for patients at risk for heavy or prolonged bleeding after a punch biopsy.¹

REFERENCE

1. Cohen PR, Martinelli PT, Schulze KE, Nelson BR. The purse-string suture revisited: a useful technique for the closure of cutaneous surgical wounds. *Int J Dermatol.* 2007;46(4):341–347. [PubMed: 17442069]

Reprint requests: Zachary Zinn, MD, WVU School of Medicine, Department of Dermatology, PO Box 9100, 64 Medical Center Dr, Morgantown, WV 26506. zzinn@hsc.wvu.edu.

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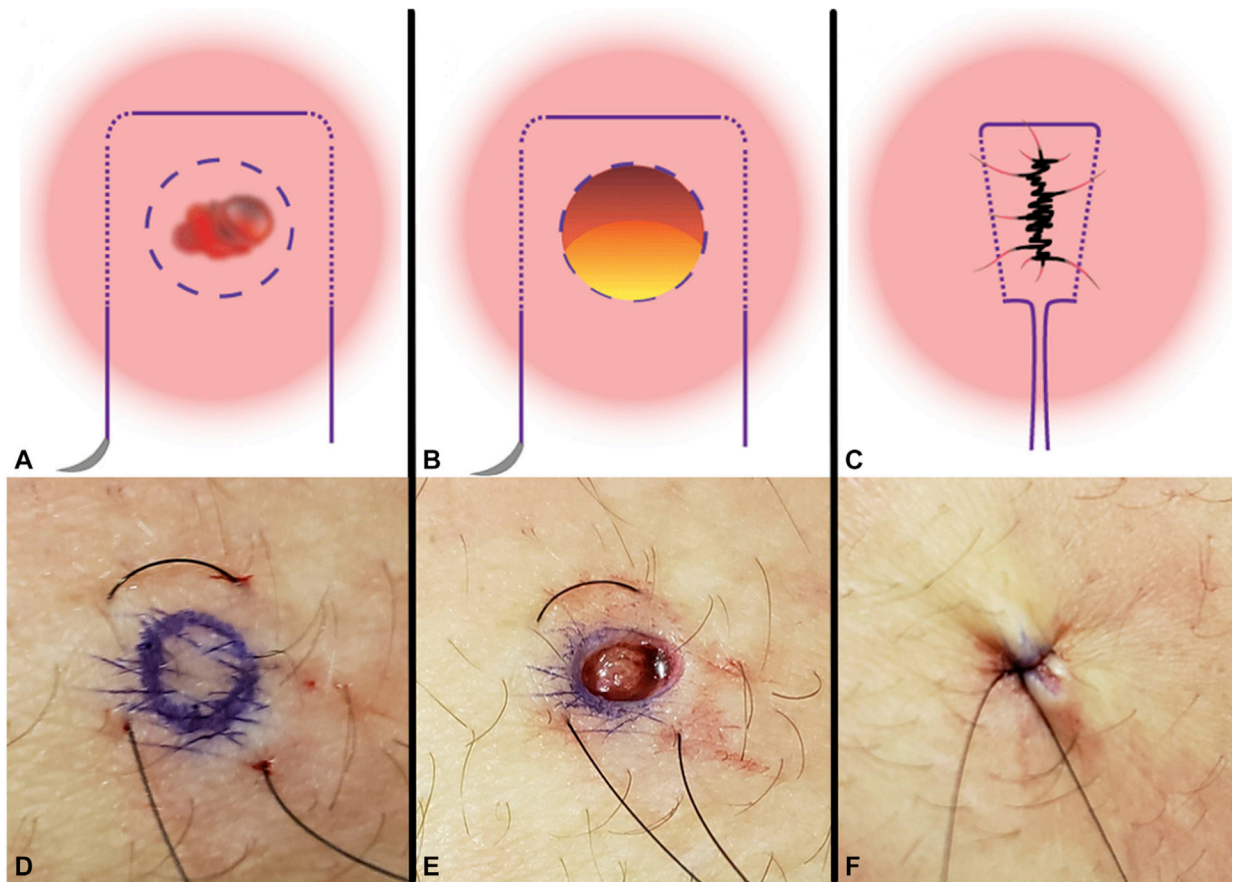


Fig 1. Use of the pre-emptive purse-string suture technique to minimize bleeding risk. **A** and **D**, The lesion is marked and a nonabsorbable intradermal purse-string suture is secured 1 to 2 mm outside the circumference of the defect. **B** and **E**, The punch biopsy is performed inside the circumference of the purse-string suture. **C** and **F**, The hanging suture strings are then pulled and tied to fully close the excision.