

Optimizing Flap Choice in the Complex Groin Wound: A Review of 175 Consecutive Cases

Michael N. Mirzabeigi, MS; Shareef Jandali, MD; John P. Fischer, MD; Jennifer McGrath, MS; Stephen J. Kovach, MD; Liza C. Wu, MD; David W. Low, MD; Joseph M. Serletti, MD; Suhail Kanchwala, MD

Purpose: Complex groin wounds following vascular surgery can be both life- and limb-threatening. The purpose of this study is to assess the clinical outcomes of a large cohort of patients with complex groin wounds and describe an evidence-based algorithm for flap selection.

Methods: A retrospective review of records was performed on patients undergoing reconstruction for a complex groin wound from January 2005 to December 2010. The outcomes assessment was subdivided by wound etiology with a focus on comparing the RF and SMF.

Results: 175 consecutive flaps for complex groin wound coverage were identified following a consultation request by the vascular surgery service. Flap selection was based on the timing of reconstruction, etiology of the wound, as well as size of the defect. The following etiologies were most commonly addressed: draining seroma/lymphocele (43), infected wound (54), hematoma/pseudoaneurysm (10), and prophylactic coverage following vascular graft (27). The recurrent infection rate for positively cultured groin infections was 3.8% for the RF versus 26.1% for all other flaps combined ($p = 0.03$). In a subgroup analysis comparing the RF and SMF, the respective recurrent infection rates were 3.8% versus 19% ($p = 0.12$). The success rate for definitive closure of a culture-negative, draining groin wound was 90% for RF and 88.5% for the SMF ($p = 0.68$).

Conclusion: Lymphoceles, seromas, and dehiscent wounds can be appropriately managed with either an SMF or RF so long as the available muscle is of adequate bulk for the given amount of dead space. In the context of groin wound infections, the RF has demonstrated superior outcomes. Our outcomes-based analysis has led to an algorithmic approach that is described in Figure 1. This study demonstrates that tailoring muscle flap selection to both wound size and etiology will lead to the best outcome.

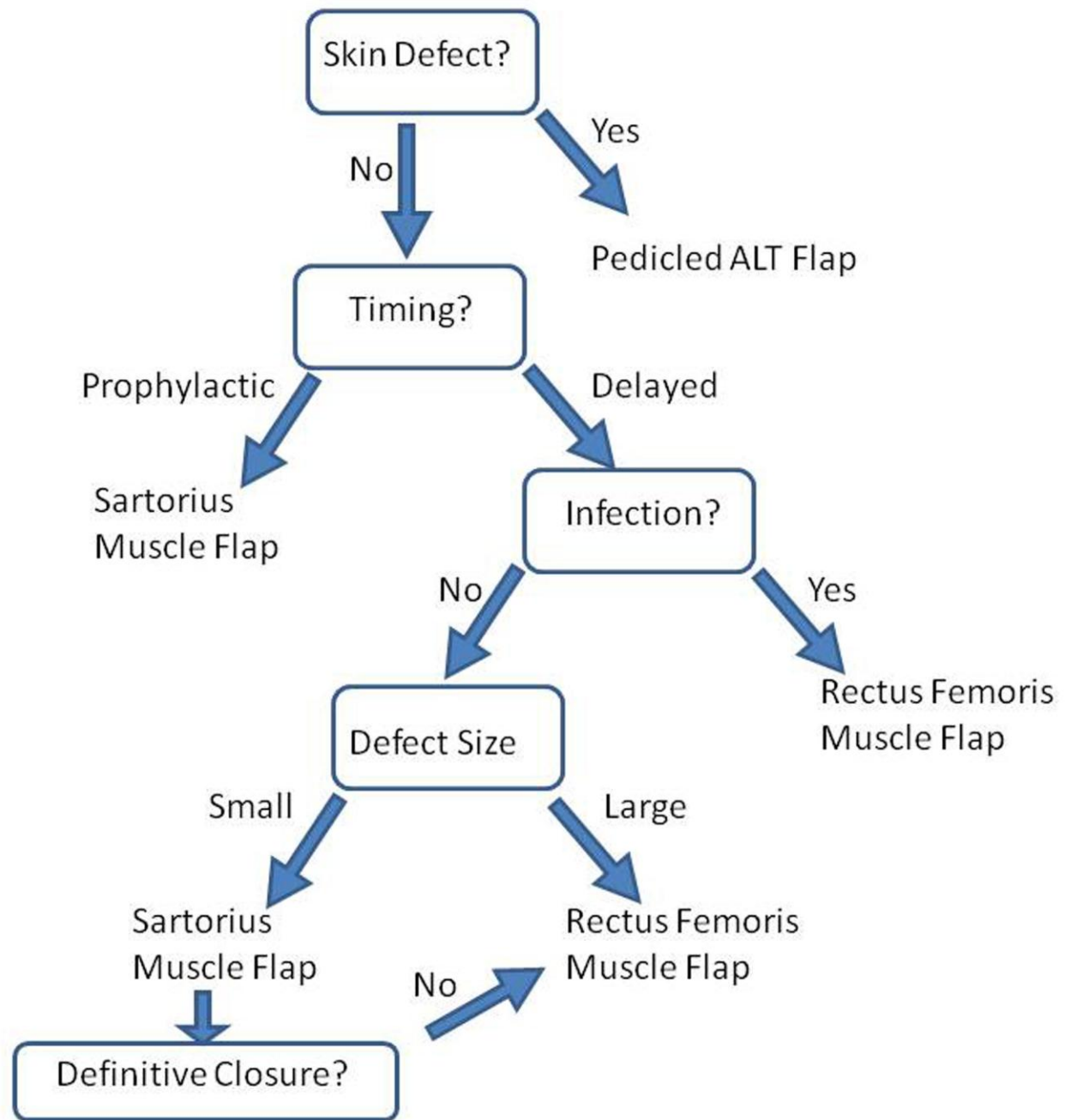


Figure 1. Management algorithm for complex groin wounds.