



# Regional anesthesia alone for pediatric free flaps



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Received 18 July 2014; accepted 2 February 2015

## KEYWORDS

Regional anesthesia;  
Microsurgery;  
Pediatric;  
Free tissue transfer

**Summary** Microvascular surgery plays an important reconstructive role in the pediatric population. Successful outcomes rely on surgical technique as well as anesthesia. Regional anesthesia contributes to successful free tissue transfer through sympathetic blockade, postoperative pain control, and elimination of risks and costs associated with general anesthesia. While regional anesthesia in microsurgery is discussed in the literature for adult and elderly patients, no studies focus on the pediatric population. Accordingly, this paper reviews 20 pediatric patients undergoing microvascular surgery (anterolateral thigh,  $n = 9$ ; gracilis,  $n = 3$ ; toe transfer,  $n = 6$ ; and fibula,  $n = 2$ ) with regional anesthesia and sedation. All patients underwent spinal epidural anesthesia, and seven also received brachial plexus blocks. The average duration of anesthesia was 3–4 h (anterolateral thigh (ALT) and gracilis) and 6–8 h (toe transfer and fibula). No anesthesia-related complications or flap failures occurred. We conclude that regional anesthesia has important benefits in pediatric microsurgery and it is a safe and cost-effective alternative to general anesthesia.

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## Introduction

In an era of increasing cost and limited resources, the use of regional anesthesia for various surgical procedures has become a cost-effective, safe solution that maximizes surgical outcome and optimizes pain control and patient care.<sup>1</sup> Although generally safe, general anesthesia carries a risk of serious complications, including malignant

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