

Discussion: Successful Use of WALANT in Local and Regional Soft Tissue Flaps: A Case Series

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This article from New York by Dr. Connors and colleagues is a January 2023 publication of a series of 21 patients who all had successful outcomes with local or regional soft tissue flap surgery using the wide awake local anesthesia no tourniquet (WALANT) technique with lidocaine and epinephrine anesthesia and no sedation.¹ It is worth listing that they performed two posterior tibial artery perforator propeller flaps, two reverse radial forearm flaps, two Quaba flaps, six cross finger flaps, one reverse homodigital island flap, three first dorsal metacarpal artery flaps, two thenar flaps, and two Moberg flaps.

This article is very important for three main reasons. Firstly, despite ample evidence that epinephrine 1:100,000 is safe in fingers and elsewhere,^{1,2} the myth that low-dose epinephrine causes tissue loss is still prevalent enough that many surgeons are still worried about using it when raising flaps, for fear of flap necrosis. This is part of the reason that some of the first flap elevation articles by Prasetyono³ used a very low dose of epinephrine (1:1,000,000) to err on the safe side. Dr. Connors' group used 1:100,000 in the current study without flap tissue loss. Interestingly, low-dose epinephrine is cardiac muscle protective when injected directly into coronary arteries.^{4,5}

The second and globally important reason that this article is very significant is that the WALANT technique will make flap surgery much more available in many African countries where patients cannot get these important procedures because they cannot afford them, and because anesthesiologists are in very short supply. WALANT eliminates the costs of unnecessary tourniquet and sedation. Evidence-based sterility permits many procedures to be moved to minor procedure rooms.^{6,7} As a result, surgery is now becoming affordable for many patients in Africa.⁸ This recent publication will provide further impetus to enable more patients to get flap surgery in emerging countries. It is worth mentioning that most African countries have very few plastic surgeons. Dr. Connors and her group in New York are orthopedic surgeons. This will also help encourage nonplastic surgeons in emerging countries to use these flaps.

The third reason this article is important is that it is published in an open access journal. This makes it available to all the surgeons of the world who need it the most. "Pay for subscription" journals may often have a higher "impact factor" in academic terms. However, unless they can afford the subscription or belong to a university who can get it for them, most surgeons of the emerging nations have no way to see these publications. This article that I have had the pleasure of discussing will have true impact.

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DISCLOSURE

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REFERENCES

1. Connors KM, Guerra SM, Koehler SM. Current evidence involving WALANT surgery. *J Hand Surg Glob Online*. 2022;4:452–455.
2. Schnabl SM, Ghoreschi FC, Scheu A, et al. Use of local anesthetics with an epinephrine additive on fingers and penis—dogma and reality. *J Dtsch Dermatol Ges*. 2021;19:185–196.
3. Prasetyono TOH. Epinephrine one-per-mil tumescent solution in hand surgery: review of experimental and clinical studies. *Hand Surg Rehabil*. 2021;40:554–559.
4. Jafari Afshar E, Samimisedeh P, Tayebi A, et al. Efficacy and safety of intracoronary epinephrine for the management of the no-reflow phenomenon following percutaneous coronary interventions: a systematic-review study. *Ther Adv Cardiovasc Dis*. 2023;17:17539447231154654.
5. Tantawy M, Selim G, Saad M, et al. Outcomes with intracoronary versus intravenous epinephrine in cardiac arrest. *Eur Heart J Qual Care Clin Outcomes*. 2023;qcad013.
6. Avoricani A, Dar QA, Levy KH, et al. WALANT hand and upper extremity procedures performed with minor field sterility are associated with low infection rates. *Plast Surg (Oakv)*. 2022;30:122–129.
7. Yu J, Ji TA, Craig M, et al. Evidence-based sterility: the evolving role of field sterility in skin and minor hand surgery. *Plast Reconstr Surg Glob Open*. 2019;7:e2481.
8. Holoyda KA, Farhat B, Lalonde DH, et al. Creating an outpatient, local anesthetic hand operating room in a resource-constrained Ghanaian hospital builds surgical capacity and financial stability. *Ann Plast Surg*. 2020;84:385–389.

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