Journal of Plastic, Reconstructive & Aesthetic Surgery (2009) **62**, 1326

JPRAS
An International Journal of Surgical Reconstruction
www.JPRASurg.com

INVITED COMMENTARY

Invited Commentary on 'Temporary catheter perfusion and artery-last sequence of repair in macroreplantations'

S. Raja Sabapathy*

Department of Plastic Surgery Ganga Hospital Plastic Surgery, Hand Surgery and Reconstructive Microsurgery, Swarnambika Layout Ramnagar Coimbatore, Tamilnadu 641 009, India

Received 8 February 2008; accepted 8 February 2008

The authors of this article have much experience in replantations and have advocated early temporary arterial shunting and artery last sequence for major replantations.[1] They have a creditable success in all 28 cases and successfully salvaged 24% of cases with significant complications. Serious complications of a major replant depend upon the ischaemia time and the volume of the muscle mass. An analysis of Table 1 of their article reveals that 10 trans-humeral and one through-elbow amputations had an average total ischaemia time of 7.4 h (highest 10 h), of which the period of primary ischaemia is 4 h. Thus, all the steps of the procedure from debridement to arterial repair (the last structure to be repaired) have been done in 3.5 h. I think this speed is the cause for the singular lack of ischaemia time-related complications. The importance of the need to reduce ischaemia time must not be underestimated and it is not advisable to use the technique of early temporary shunting as a reason for performing the major replants slowly. While the authors did not mean that, an occasional replant surgeon must not take that as the message of this article.

It would be interesting to do some research to determine the extra period of safe ischaemia time that 10 to 15 min of preliminary temporary shunting provides in a clinical situation. If the authors could have compared these results with the results of their cases before this sequence was followed, it would have provided more information. The artery last sequence definitely makes the repair of musculotendinous structures easy. But it has not improved the functional outcome of these patients. Hence, while it is agreed that early temporary catheter perfusion is useful, when the artery last sequence is practised, every effort must still be made to keep the ischaemia time as short as possible.

Reference

1. Cavadas PC, Landin L, Ibanez J. Temporary catheter perfusion and artery-last sequence of repair in macroreplantations. *J Plast Reconstr Aesthet Surg* 2009;**62**:1321—5.

* Tel.: +91 422 2235050; fax: +91 422 2235608.
E-mail address: srs@gangahospital.com

doi:10.1016/j.bjps.2008.02.036