A Simple Trick to Save Your Day during Nerve Transfers While Doing Axillary Nerve Transfer

Bandi Sahithya[1] Praveen Bhardwaj[1] Hari Venkataramani[2]

[1] Department of Hand & Wrist Surgery and Reconstructive Microsurgery, Ganga Hospital, Coimbatore, Tamil Nadu, India
[2] Department of Trauma and Plastic Reconstructive Microsurgery, Ganga Hospital, Coimbatore, Tamil Nadu, India

Address for correspondence Bandi Sahithya, MBBS, MS (Ortho), MGR, Department of Hand & Wrist Surgery and Reconstructive Microsurgery, Ganga Hospital, Coimbatore 641043, Tamil Nadu, India (e-mail: sahithyabandi008@gmail.com).

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Dear Sir,

Postoperative bleeding is always a feared complication of any surgical procedure. More so in an operation like a nerve transfer where the nerve repair site is very delicate. Hematoma around the nerve may result in more scarring and hence compromise nerve recovery. Furthermore, if the hematoma is severe, needing exploration in clot filled area risks nerve repair site.

The cut ends of the nerve may sometimes cause substantial bleeding from the vasa nervosa.[1,2] This could be problematic in situations like a nerve transfer for axillary nerve where the surgeon is keen to divide the nerve as proximal (deep) as possible to gain longer length of the axillary nerve for easy coaptation to the donor nerve (often a motor branch to one of the heads of triceps). In doing so, the proximal cut end may get retracted deep inside and may not be seen to assess if there is any bleeding from the cut end of the nerve. In fact, this was the cause of postoperative bleeding in our two cases after nerve transfer for the axillary nerve.

Urgent exploration of the operative site at presentation on 6th and 13th postoperative day revealed huge amount of blood clots and blood under tension (►**Fig. 1A**). Blood ooze was noted from deep in the quadrangular space from the proximal cut end of the axillary nerve. The nerve cut end lies very deep in the quadrangular space and in the second case we even feared that exploration of the cut end would need an anterior approach. However, with deeper dissection we could get the cut end from the posterior aspect itself and postoperative period was uneventful.

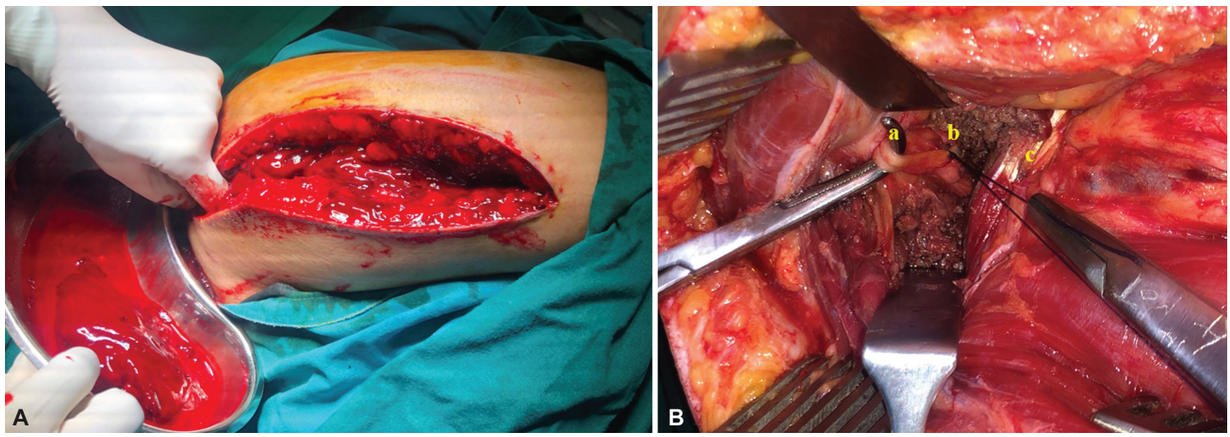

Fig. 1 (**A**) Intraoperative image revealing huge amount of blood clots and blood under tension from the arm. (**B**) Ligation of the proximal cut end of the axillary nerve before dividing it. (a) Axillary nerve in the quadrangular space. (b) Ligature applied on the axillary nerve. (c) Teres major.

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Following the second incidence of bleeding, our unit has formulated a policy to routinely ligate or clip the proximal cut end of the axillary nerve before dividing it (►**Fig. 1B**). Axillary nerve exposure is improved by retracting/partially dividing the teres major muscle, it is gently pulled upward, and ligature or clip is applied as proximally as possible. The nerve is then divided distal to the ligated area and the nerve transfer is proceeded as usual.

This simple step can be made routine while performing the nerve transfers for the axillary nerve, although it requires additional proximal dissection of the nerve for the application of ligature. The technique has no known contraindication and it would save the surgeon from the dreaded complication of postoperative bleeding and apprehension on re-exploring the nerve repaired area. This also would assure a better nerve recovery environment locally.

Conflict of Interest
None declared.

References

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