

A Low Cost Microsuction Tip Cannula in Microvascular Surgery

Parmod Kumar, MS, M.Ch; K.S. Ajai, MS*

Department of Plastic Surgery, Postgraduate Institute of Medical Education and Research, Chandigarh, India



Abstract

Optimum operating conditions are an integral part of a successful microvascular surgery. We hereby introduce a new technique to make a low-cost microsuction cannula, which will be helpful for microvascular surgeons.

A perfect microsurgical anastomosis is crucial for the survival of a free flap. One needs to have special micro instruments, microsutures, and operating microscope for the successful anastomosis [1,2].

An anastomosis is done after clamping the vessels or under tourniquet. A bloodless field in the microscope helps the surgeon to tackle the microsutures and see the lumen. Clamp removal for checking the functional status of the anastomosis often leads to a blood-filled field in the working area. Heparin saline irrigation is also an important step during the vessel anastomosis, which will flood the field. The normal suction cannulas are not suitable to use here because they may endanger the anastomosis through its powerful suction. In this manuscript, we would like to introduce a simple technique to make a microsuction cannula.

The materials needed for making this are a suction tube, a 2 ml syringe, and a cannula sheath. The suction tube end is telescoped into the 2 ml syringe and the cannula sheath is attached to the syringe (Figure 1 and Figure 2). Although commercial metallic suction tips are available in some countries, this technique can be helpful for surgeons in the developing or poor countries. Video 1 (accessible at <https://doi.org/10.24983/scitemed.imj.2018.00067>) demonstrates the fabrication of a cost-effective microsuction cannula, essential for ensuring a clear and hemostatic surgical field in microvascular procedures.

Article Information

*Correspondence: K.S. Ajai, MS



Figure 1. A microsuction cannula used during surgery.

Department of Plastic Surgery, Postgraduate Institute of Medical Education and Research, Chandigarh, India. Email: ajaiks1985@gmail.com

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Keywords

Cannula sheath; microsurgical anastomosis; microsuction cannula; suction tube.

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Figure 2. A microsuction cannula made from a syringe and an intravenous cannula.