A Practical Guiding Method for Vein Graft Harvesting

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Dear Editor,

Harvesting vein graft is a commonly performed salvage procedure in hand and reconstructive microsurgery when insufficient length of the vessels to be available or lack of a segment of the vessel [1]. Vein grafts are taken from superficial veins which are commonly present on extremity subcutaneous tissue. Although graft need can be predicted in some situations, it is mostly decided during the operation period. The consistency between the diameter of taken vein graft and applied vessels is wanted.

We are using noncontact visualization system (AccuVein AV300, Cold Spring Harbor, NY) in our clinic; in order to determine the location of betaken vein graft. (Fig. 1). The main aim this device that belong to Anesthesia clinic; guiding anesthesia medical doctors in challeging cases and children for establishing vascular access. This device uses infrared and laser technology to help locate veins easily. When positioned about 8–15 cm above the skin, the device detects the difference in reduced hemoglobin concentration between the veins and surrounding tissue at about 0.7 cm depth from the surface of the skin and then instantly displays a map of the veins larger than 1 mm on the skin. [2, 3] Superficial blood vessels appears dark on a red background and no patient contact is required. [2, 3] So we can harvest vein graft through a very small skin

Fig. 1 Noncontact visualization system device (AccuVein AV300, Cold Spring Harbor, NY) (above left). When positioned about 8–15 cm above the skin (below left), superficial blood vessels appears dark on a red background and no patient contact is required (below right)

incision on the correct location. As a disadvantage; this method may be insufficient for an applied tourniquet on extremity because of a hemoglobin dependent view.

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