

## Abstract

### Transposition of Basilic Vein with Minimal Incision

Joo DJ, Huh KH, Kim MS, Lee SH, Lee AL, Kim YS

Department of Surgery, Yonsei University College of Medicine, Seoul, Korea.

#### Background:

It is well known that autogenous vein is the best choice for arteriovenous fistula (AVF) formation to prolong the patency and to maintain with less complication. Unfortunately, not all patients showed good cephalic vein to form AVF. However, few of them showed a good basilic vein to make a transposition, which need a long skin incision along the basilic vein. Herein, we introduce a surgical technique to make a basilic vein transposition with minimally several skin incisions.

#### Methods:

Patient should be evaluated by physical examination and/or venography if needed. If the patient shows good basilic vein without a proper cephalic vein to use, the patient can be a candidate for basilic vein transposition. A transverse skin incision is made on the antecubital area to find a basilic vein and brachial artery under local anesthesia. After that, three or four transverse or longitudinal skin incisions about 1.5~2.0 cm in length are made along the basilic vein and the basilic vein is pulled out toward axillary area in sequence (Fig. 1). Full length of the basilic vein is transpositioned toward lateral side of the upper arm by tunneling under the skin with 6 mm tunneler and anastomosed to the brachial artery with end-to-side manner. After anastomosis, skin incisions are subcuticularly approximated with vicryl 4-0.

#### Results:

Transpositioned basilic vein was well dilated and showed good flow (Fig. 2). Operation time was around 1 ½ hours. Transpositioned basilic veins were well matured enough to dialysis.

#### Conclusions:

Basilic vein transposition is a feasible and a good method to make AVF with autogenous vein. Small incision can be applied to basilic vein transposition, which can be less painful and more comfortable to the patients.



**Fig 1:** Operative findings. Basilic vein was pulled out through small skin incision and transpositioned toward cephalic side of the upper arm



**Fig 2:** Post-operative findings. Well maturing status of transpositioned basilic vein at the post-op 10 days after surgery.