The most decisive step during free tissue transfers and replantation surgery may be respected as microvascular anastomosis. The conventional end-to-side anastomosis technique with simple interrupted sutures is well established and proven to be successful. On the other hand, conventional technique can be time consuming and can cause vascular thrombosis, vessel narrowing, and foreignbody reactions. Search for a more rapid and secure alternative to conventional technique is carried on. In this study, we defined a new technique for end-to-side anastomosis with fish-mouth incisions and application of fibrin glue and compared our results with those we obtained with conventional end-to-side anastomosis. We evaluated end-to-side anastomosis of carotid arteries of a total number of 64 Wistar-Albino rats. In control group (n = 32), conventiona anastomoses with 8 to 10 sutures were performed. In experimental group (n = 32), fish-mouth incisions were applied first on the recipient artery, followed by performing anastomosis with only 2 corner sutures and applying commercially available fibrin glue. Time taken to perform the anastomosis was significantly shorter with the experimental group (P = 0.001), whereas early and late patency and aneurysm rates were comparable to those achieved with control group. Histological evaluation did not point out any significant differences between the groups. We have defined a rapid and safe alternative technique of end-to-side anastomosis with the use of fibrin glue. This method may be an alternative especially where multiple anastomoses are required or where it is difficult to approach anastomotic line, as it is easily performed, rapid, safe, and not involving any complex equipments.

Yayına ulaşmak için tıklayın - Two suture fish-mouth end to side microvascular anastomosis with fibrin glue