INFRACLAVICULAR BLOCK AS PREFERRED ANAESTHESIOLOGIC TECHNIQUE IN THE ARTERIOVENOUS FISTULAE PLACEMENT

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Background and aim: Durable vascular access for hemodialysis remains a critical issue in patients with renal failure. Creation of autogenous Arterio-Venous Fistula (AVF) in the most distal location of the nondominant forearm, is the currently preferred technique. The aim of this study was to show as regional blocks, through produced venodilatation and induced sensory-motor block, can be useful for the creation of new AVF. Methods: From February 2007 to March 2008, 37 patients (67 +/- 16 years) subjected to AVF placement, received infraclavicular block with levobupivacaine 0,5% (16 +/- 3,6 ml) or ropivacaine 0,75% (19 +/- 4 ml) using a nerve stimulator. Intraoperative duplex ultrasonography was used to assess the degree of venodilatation of the basilic and cephalic veins before and after the block. Each measurement was recorded in two times: before placement of the block, after placement of the block. Results: Complete nerve block was achieved in 34 patients (91,8 %). In three cases an additional dose of local anesthetic (lidocaine) administered by the surgeon was necessary. A light sedation with remifentanil 0,05 µg/kg/min was provided in four patients. Sensory block was accomplished within 12 to 23 minutes with levobupivacaine 0,5%, while 9 to 18 minutes with ropivacaine 0,75% and usually lasted 5 to 7 hours. Motor block was accomplished in 13 to 24 minutes. No complications were recorded. The degree of venodilatation noted as a percentage increase after placement of the block compared to the one before the placement of the block was 41% for the distal cephalic, 29% for the midcephalic and 30% for the midbasilic veins. Conclusion: In our experience, infraclavicular block is a safe technique that offers numerous advantages to the surgeon for AVF placement and provides a good degree of analgesia to assure patients comfort.