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Title

Complications after toe to hand transfers in children with pathology of the hand.

Purpose

Currently, there is no common approach to treatment complications after microsurgical toe to hand transfer, which is an actual problem. The aim of the study was to analyze ischemic complications after the microsurgical operations in children with a pathology of the hand to improve the quality of surgical treatment.

Methods

From 2007 to 2016, we did 210 microsurgical toes to hand transfer (306 transplants). And 267 (87.3%) of these, in patients with congenital pathology and 39 (12.7%) with posttraumatic deformities of the hand. In total, 352 fingers were reconstructed.

Results

According to our study, the blood supply disturbance of the toes transplants was in 19 (6.2%) cases of 306. The most of them caused in the early postoperative period (73.7%). The main cause of microcirculatory disorders was thrombosis of the venous or arterial trunks (8 cases). In 6 patients, the blood supply disturbance occurred as a result of thrombosis. Two patients had necrosectomy at 7 and 18 days because conservative and operative treatment was not successful.

Conclusion

The method of choice for the appearance of the first signs of the blood supply disturbance in transfer toe is conservative therapy, which includes disaggregants, anticoagulants and hirudotherapy. The effect of conservative therapy should be performed in 3 hours from the beginning of ischemia, if it is absent, the patient must be operated. The operation includes soft tissue decompression, the mechanical pumping across of vascular anastomoses, and if it necessary, excision of abnormal part of the vessel with subsequent autoplasty.