

3 YEAR RESULT AND COMPLICATION ANALYSIS OF ARTHRODESIS OF ANKLE AND SUBTALAR JOINTS

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Introduction. Ankle and subtalar joint arthrodesis is surgical procedure for patients suffering from septic or aseptic ankle and subtalar joint arthritis, which causes pain and deformity. The aim of surgery is to reduce pain by fusing the suffering joint, correcting deformity if needed.

Aim. The aim of this study was to find fixation method for ankle and subtalar joint arthrodesis that had less complications and better outcome (reduction of pain, anatomic foot position etc.) in Hospital of Traumatology and Orthopaedics, Riga, Latvia, in period from 2010. till 2013.

Results. Study group consisted of 66 patients undergone arthrodesis either isolated for ankle or subtalar joint, or combined. The causes of arthritis were trauma and other diseases, causing septic or aseptic arthritis and pain, with mean follow up time for 28.7 months. At follow up visit patients filled out the AOFAS Ankle and hindfoot score, had their foot examined and a new x-rays were made and described by independent radiologist. We divided patients in three groups – patients with isolated subtalar arthrodesis (18 cases), patients with talocrural (25 cases) and tibiototalcalcaneal (23 cases) arthrodesis. These groups were compared according to functional and radiological results and complications. The most commonly used fixation method for talocrural joint fixation was screws (15 of 25 cases), for tibiototalcalcaneal joint – intramedullary nailing (14 of 23 cases) and for subtalar joint- screw fixation (18 from 18 cases). Talocrural and subtalar arthrodesis groups had lowest complications rate and better functional results compared to tibiototalcalcaneal

arthrodesis group. The most common complications were – persisting pain, nonunion and metal hardware failure. In most case with complications joint space is still clearly visible in control X-rays.

Conclusions. Talocrural and subtalar arthrodesis group had better results comparing to tibitalocalcaneal arthrodesis according to AOFA score. More complications and worse functional results were observed in tibiotocalcaneal group. In the most of these cases lack of fusion in joint space is still clearly visible in control X-rays. Screw fixation is the method of choice when fusing isolated either talocrural (mean AOFAS 73 of 100 points) or subtalar joint (mean AOFAS 71.5 of 100 points) compared to the patients who were treated with tibiotocalcaneal arthrodesis with intramedullary nail (mean AOFAS score 58.7 of 100 points). In cases where good and excellent results were achieved, method used for fixation were -screws, plates or nails, that makes this treatment method fully surgeon dependent.