Objective: There are a lot of techniques for thumb basal joint arthritis treatment, which is very common pathology in our region. We tried to find out if RegJoint™ bio absorbable disk spacer implant is good choice for TMC osteoarthritis treatment.

Methods: Operation technique is performed with a bloodless field, a dorsoradial longitudinal incision preserving superficial branch of radial nerve. Then we created the capsular flap with the distal base over a TMC joint, following resection of the distal third of trapezium and resection of the cartilage remnants of the proximal part of the first metacarpal. After the surgery range of motion exercises are allowed after 3-4 weeks using a special training splint. Forty-four patients were analysed, aged 49 - 81 years. We observed patients 2, 4, 12-15 weeks and 1 year postoperatively to measure progress with x-ray control, Kapandji's 10-point functional score and Mayo wrist score and QuickDASH score.

Results: Forty-four patients were analysed: all patients were operated with our modified RegJoin™ implant arthroplasty technique with partial trapeziectomy and 13 patients with additional tendon interposition. In addition to primary surgery we also performed: 4x surgical release of de Quervain tenosynovitis, 4x carpal tunnel release and 2x trigger finger release. 6 patients had previously Menon's interposition arthroplasty on the same side and this technique was a second salvage procedure after Menon's interposition arthroplasty failure.

Pre- and Post-operatively we performed a quickDASH score and average measures were preOP 57 and postOP 22. VAS (visual analogue scale) improved from preOP 7,1 to postOP (after ~ 3 months) 2,9. Kapandji's functional score also improved from preOP 4-5 point to postOP 8-9 point.

Pre- and Post-operatively we performed Mayo wrist score and Krimmer wrist score, which improved from preOP 47 to postOP 78.

Conclusion: Using this technique the results are stimulative and comparable to the other known surgical techniques for TMC osteoarthritis operations. We can perform early mobilisation and result is good clinical outcome with quite low pain, stable (well-positioned) base of first metacarpal and low complication rate with simple, time friendly operation.