Surgery for STT-osteoarthritis with STPI - a six year follow up study

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Purpose
To evaluate the long-term outcome of surgical treatment of STT-osteoarthritis with the STPI implant.

Conclusion
Surgical treatment with the STPI result in a high patient satisfaction and should be considered as an option for treatment of STT-osteoarthritis.

Representing only 10% of clinical isolated osteoarthritis in the wrist, isolated osteoarthritis in the STT-joints is rare.

Treatment is usually conservative, but surgical treatments do exist. The use of a pyrocarbon spacer where the scaphoid trapezium pyrocarbon implant (STPI) being one of these.

Previous follow up studies of the STPI have reported a limited number of treated patients with a shorter follow up time.

Patients and methods
• 18 patients => 23 procedures in 22 wrists.
• Patients treated with the STPI 2003-2009.
• Patients followed for 72 months.
• Outcome measured with VAS (Visual Analogue Scale), grip/ and pinch strength, range of motion, a modified version of the Mayo wrist score, as well as subjective patient satisfaction.

Surgical technique
• Oblique dorsal skin incision.
• Carefully retract radial nerve and artery.
• Expose joint and incise capsule at trapezium.
• Resect 3-4 mmm of the base of scaphoid.
• Insert implant and take dynamic X-ray.
• Close capsule by using a bone anchor.
• Cast for 4 weeks and orthosis 3 months

Results
• Most patients satisfied with outcome.
• The VAS score at rest, but not at activity, decreased.
• Grip and pinch strengths increased after the procedure.
• Range of motion or Mayo wrist score did not change after the procedure.