Short Term Results at 6 Months Follow Up of Yttrium-90 Silicate Radiosynovectomy (RS) Treatment in Knee Osteoarthritis (OA)

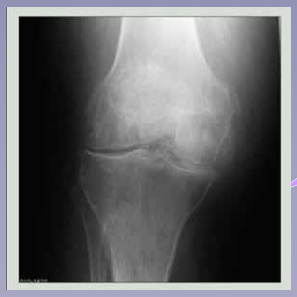
D. Chatzopoluos*, P. Markou#, D. Lo Presti*, I. Iakovou*
*Departement of Nuclear Medicine Papageorgiou Hsp, Aristotle University Thessaloniki
#Health Care Unit Management, Edessa
GREECE.

aim:

Assess the outcome results at 6 months follow up of patients with painful knee OA **treated** with single Y-90 RS and factors that influence the results

materials:

RS was performed with intra-articular knee injection of 185 MBq Y-90 silicate according EANM guidelines in 74 knee joints with OA of 74 patients



All joints were:
classified by X-ray Steinboecker system

RS response was assessed at 6 months in terms of a 100-point Visual-Analog-Scale (VAS) pain improvement from baseline values, of the improvement of knee flexibility and pain remission during the night

Visual-Analog-Scale (VAS)

results

VAS knee joint improvement at the 6 months follow up period according radiographic classification.

Total number of treated knee joints	n = 74	VAS improvement
Grade 0 (no, percentage)*	4 (5.4%)	85.0 ± 12.9 (70-100)*
Grade I*	27 (36.5%)	76.3 ± 15.6 (50-100)*
Grade II*	20 (27.0%)	62.3 ± 25.6 (0-90)*
Grade III*	21 (28.4%)	54.2 ± 29.8 (0-100)*
Grade IV*	2 (2.7%)	50.0 ± 0.0 (50-50)*

RS response rates in terms of success (excellent and good) or failure (fair and poor) results at 6 months
Percentage values are shown in parentheses

No of joints	Excellent (VAS ≥75)	Good (VAS 50-75)	Fair (VAS 25-50)	Poor (VAS < 25)	Success (VAS >50)	Failure (VAS <50)
74	40 (54.1)	22 (29.7)	7 (9.5)	5 (6.8)	62 (83.8)	12 (16.2)

knee flexibility	% (patients)
<20 °	37.2% (16/45)
20 ° -40 °	23.2% (10/45)
>40 °	4.6% (2/45)

At 6 months follow up after RS treatment:

- Pain during the night was found to be absent on 39 out of 44 knees (88.6%)
- Knee flexibility was totally improved on 28 out of 43 knees (65.1%)
- None effect on knee flexibility was found on 15/43 joints (34.9%)

The side effects assessed at 1, 3 and 6 months follow up where considered as minimal
(in 3/45patients there was a temporary increase in synovitis, most probably due to the radiation-induced flare up synovitis, treated with joint fluid aspiration)

conclusions

- RS in patients with OA seems to be safe, without significant side effects and short time effective.
- Our findings implicate RS might be more beneficial in the early stages of OA.