

Synoviorthesis with Rifampicin as A Adjuvant Treatment of Hemophilic Arthropathy

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Objectives:

- Synoviorthesis
 - intra-articular injection of chemical or radioactive substances
 - fibrosis of the hypertrophied synovium
- The objective --- Clinical outcomes of injection of rifampicin as a adjuvant treatment in patients with hemophilic arthropathy.

Methods:

- 2009 to 2010, 12 joints -- 4 knees,4 ankles,4 elbows
- Stage I: 5, stage II: 4, stage III: 3
- Mean age : 25.4 years (7 - 40 y)
- Follow up: 26-36m(mean,32.8m)
 - Dosage, method & frequency of intraarticular injection of rifampicin
- For knees :
 - 250~500mg with 3ml lidocane, once a week (6wks)
- For ankle & elbow :
 - 100~250mg with 1.5ml lidocane,once a week (6wks)
- AHF factor applied(level 30%) before injection, oral analgesia used before and after

Table . Results of synoviorthesis with rifampicin

Excellent	1	2	1	4
Good	2	2	1	5
Fair	1	---	1	2
Poor	---	---	1	1
Total	4	4	4	12

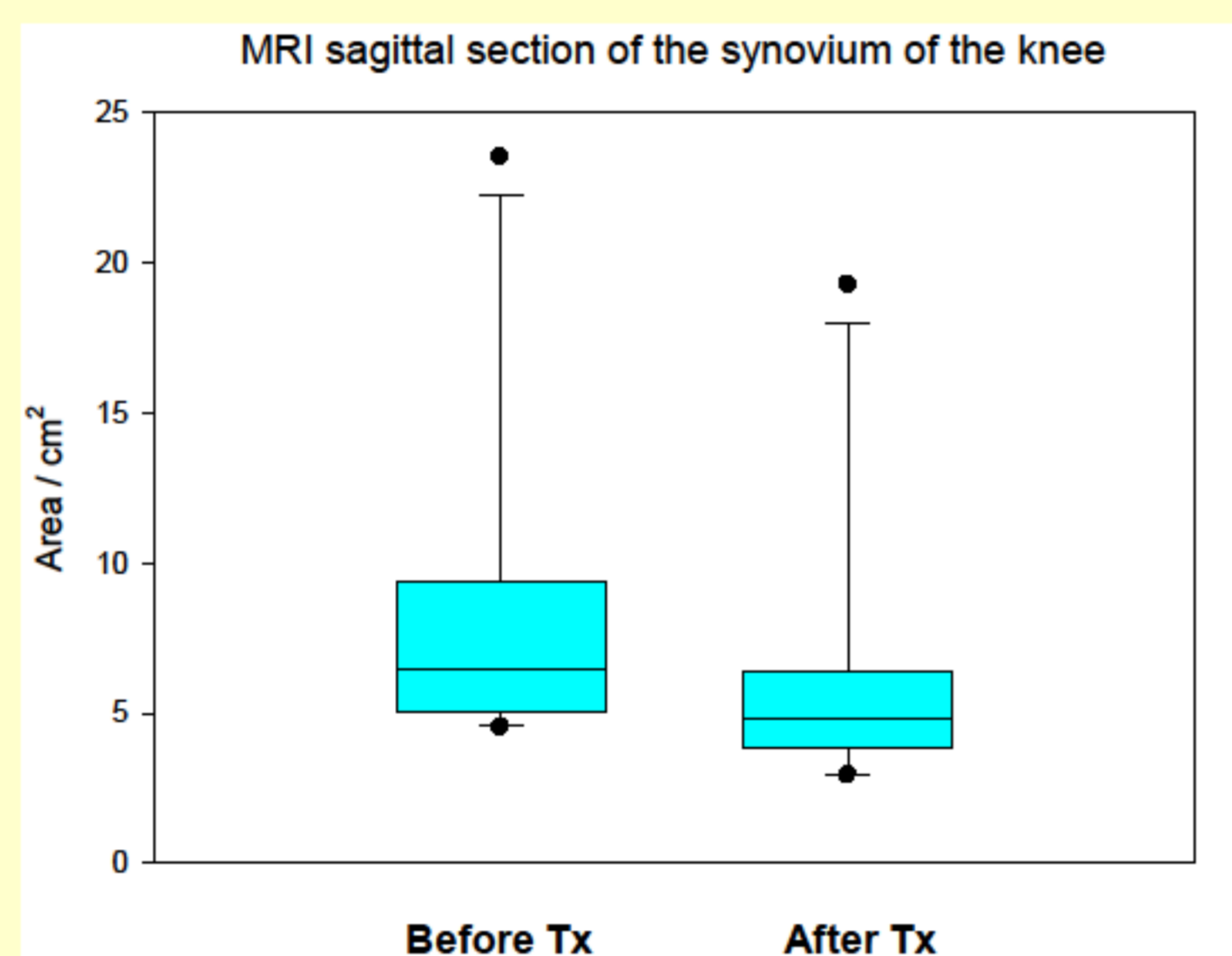


Fig.1 The change of the synovial area in a series of sagittal sections before and after the treatment was significant (P=0.0007).

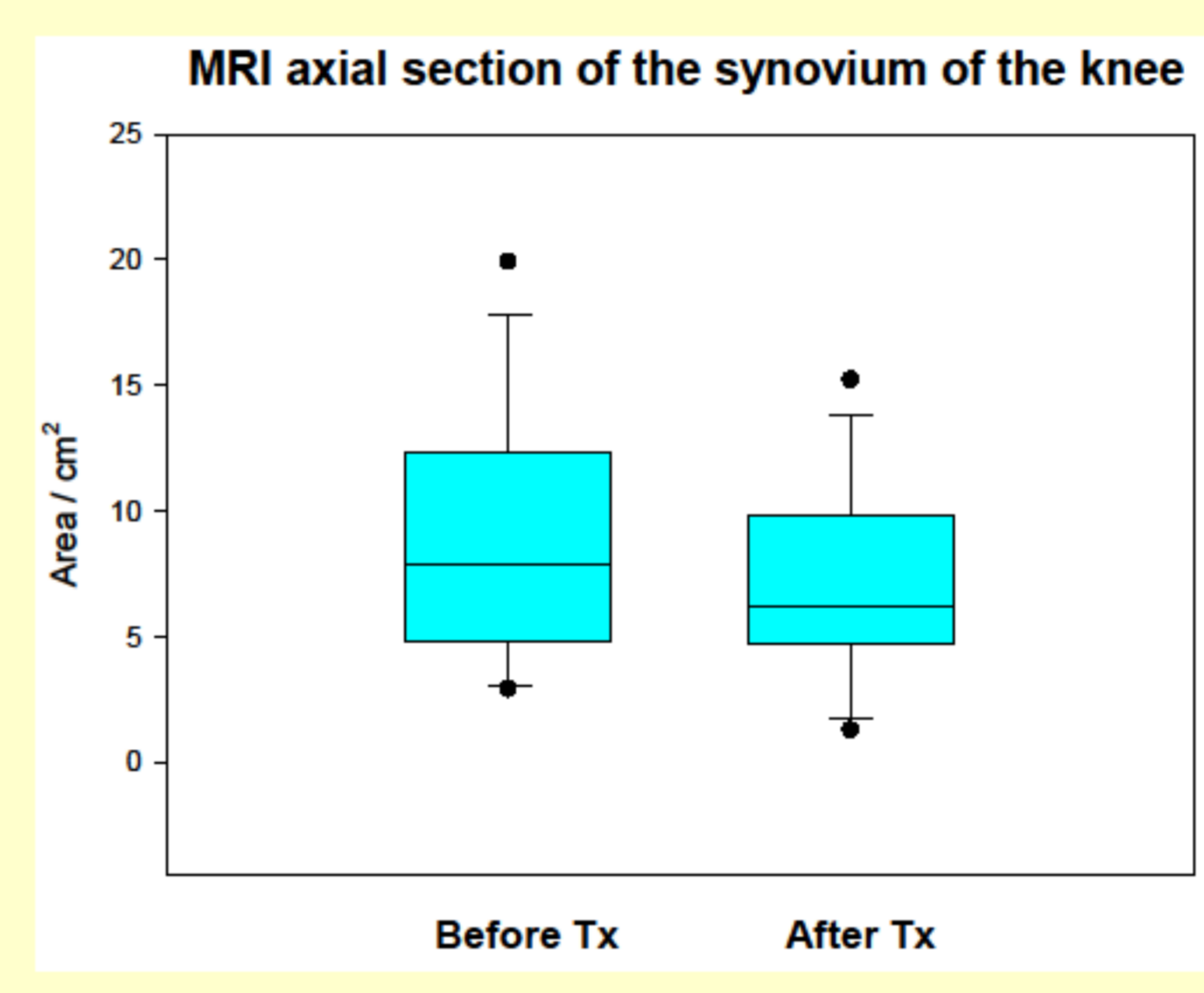


Fig.2 The change of the synovial area in a series of axial sections before and after the treatment was significant (P=0.00003).

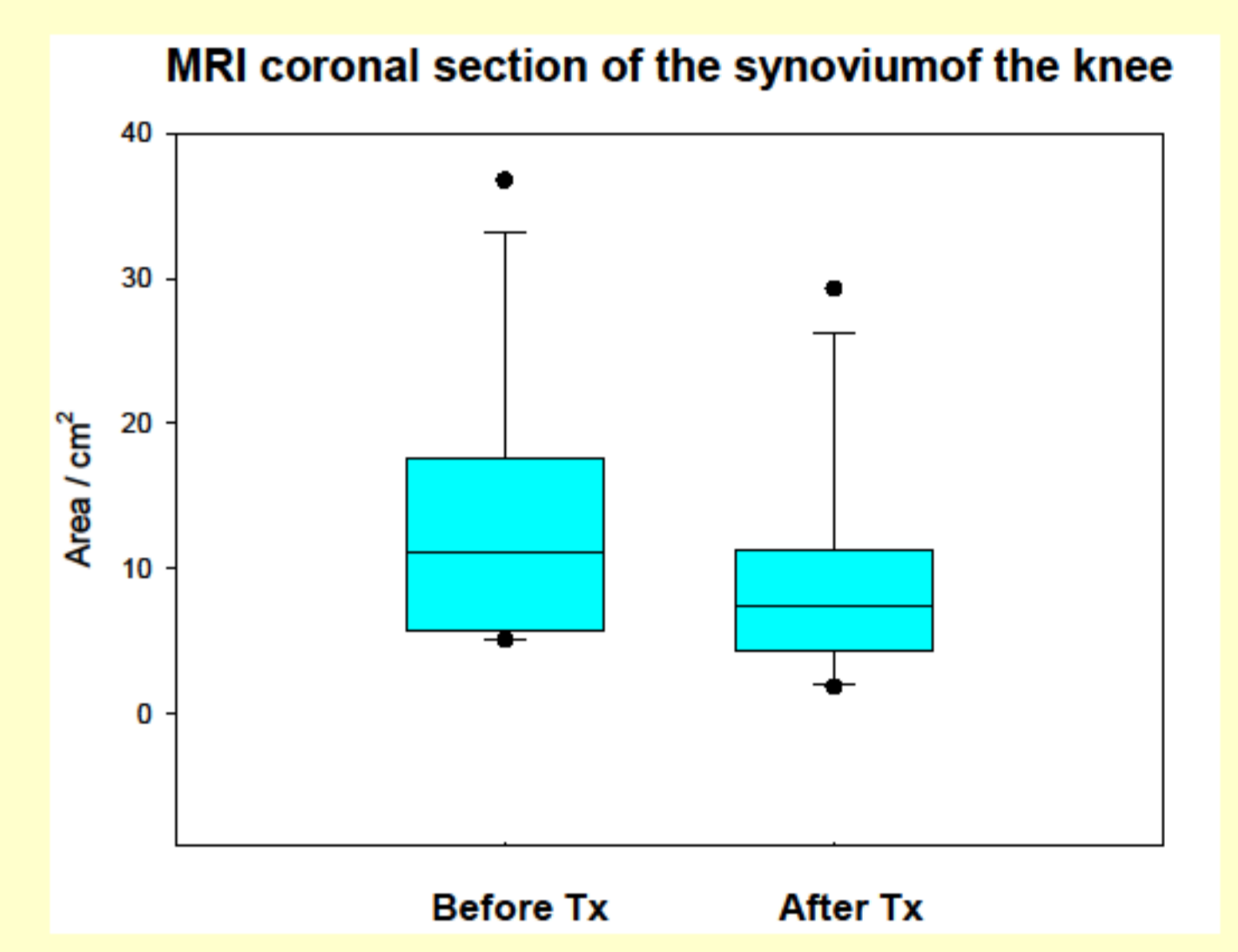
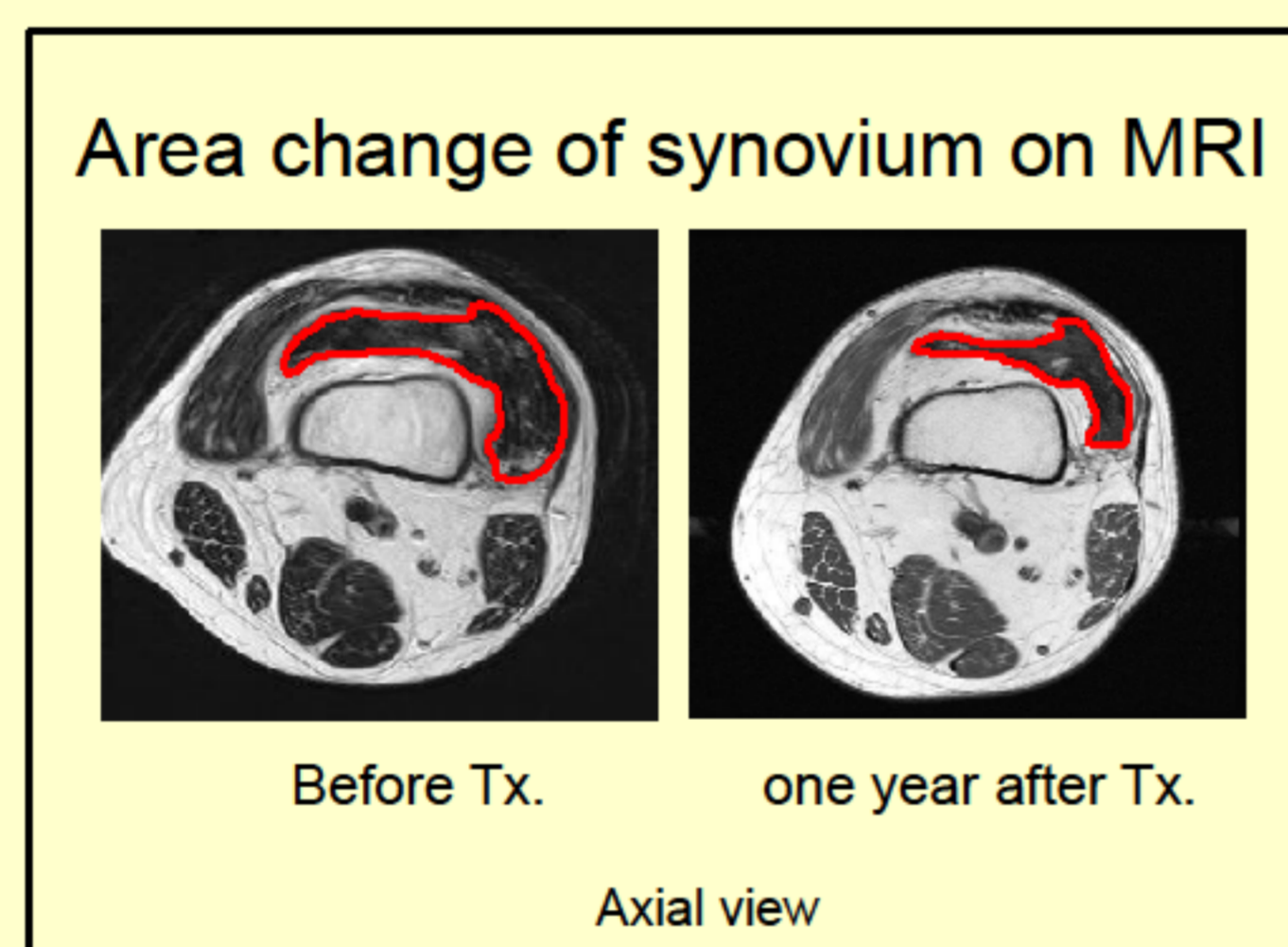
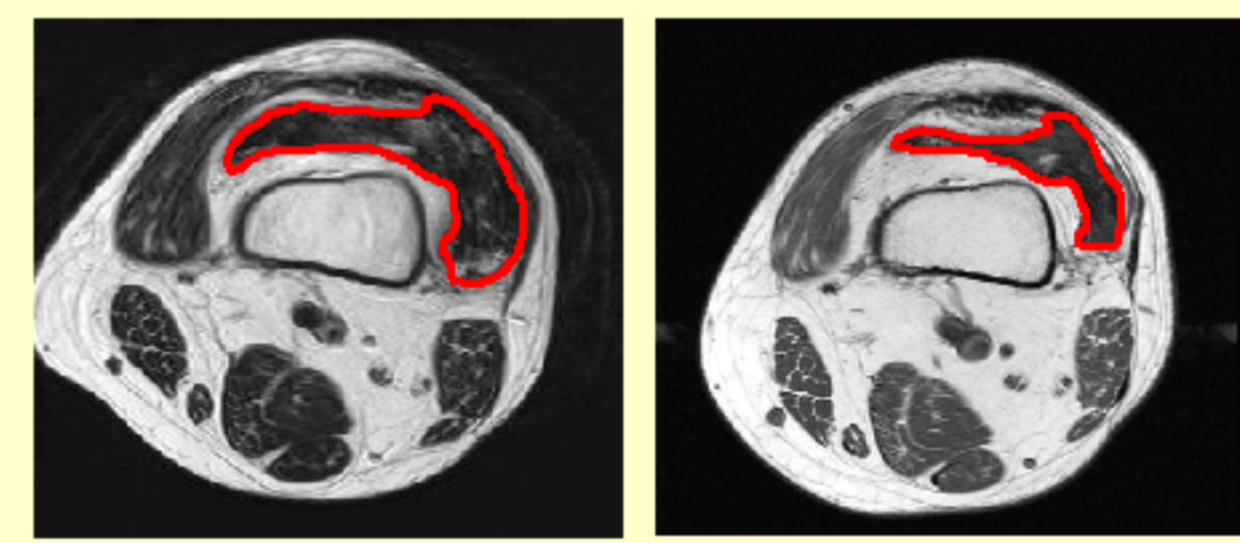


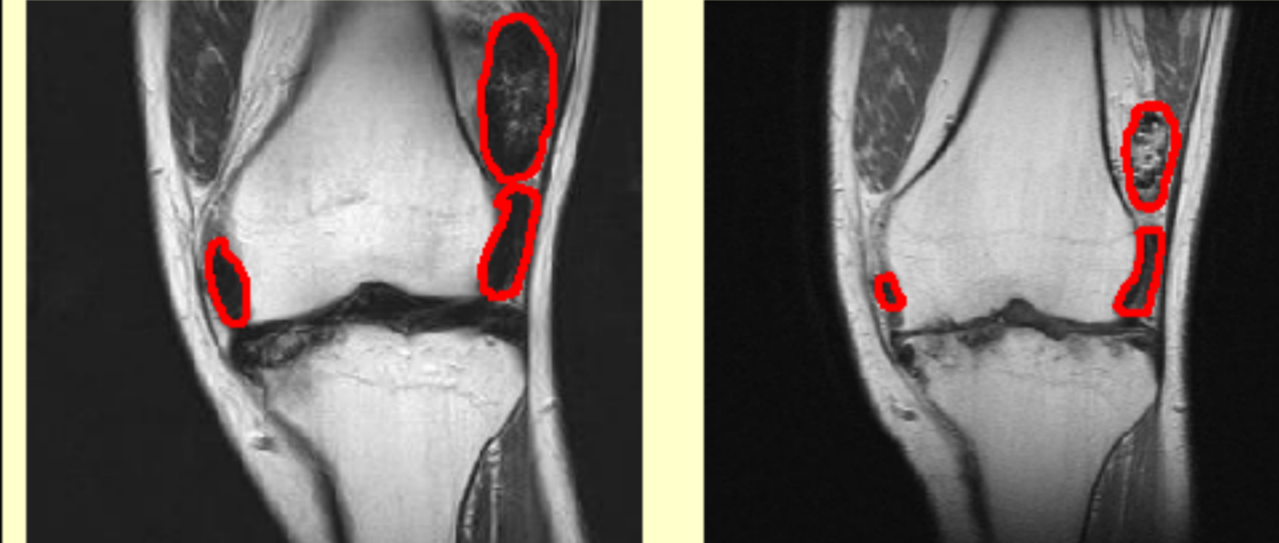
Fig.3 The change of the synovial area in a series of coronal sections before and after the treatment was significant (P=0.00001).



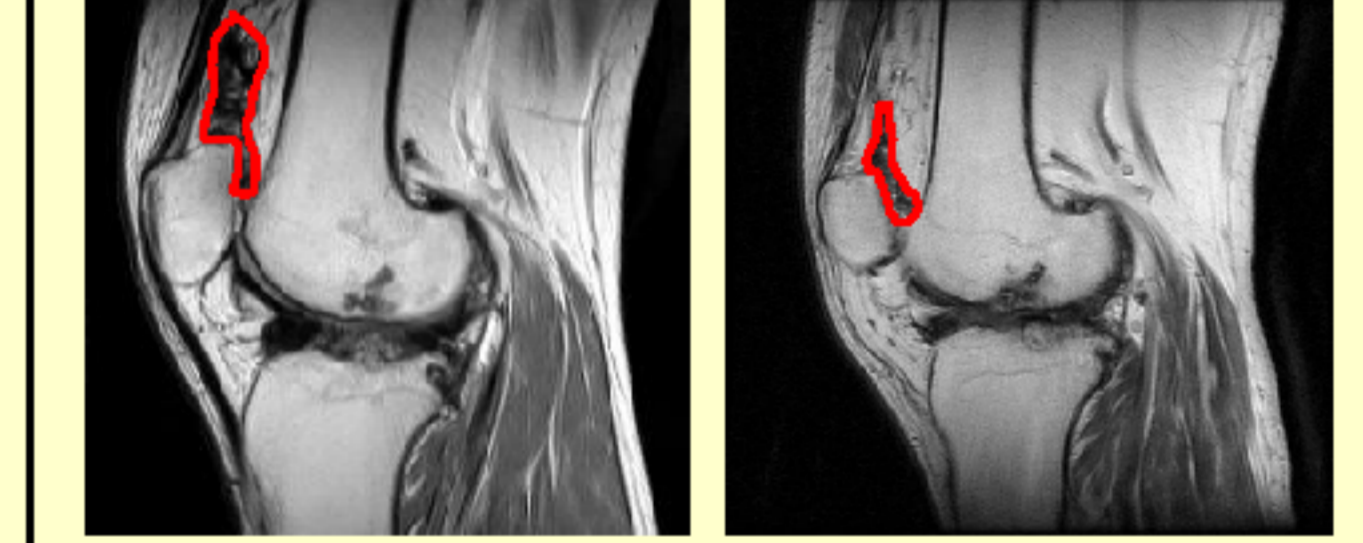
Area change of synovium on MRI



Area change of synovium on MRI



Area change of synovium on MRI



Results:

- Bleeding frequency: 6.2 to 0.7/month (SD: ± 2.8)
- Pain score (VAS): 8.5 to 3 (SD: ± 4.5)
- Range of motion :
 - knee(4): stage III(100→80), stage II(2)(105→120), stage I: ---
 - ankle(4): stage III(30→25), stage II (45→35), stage I(2): (45→60)
 - elbow(4): stage III:---, stage I(3): (105→115)

References:

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3. Luck JJ, Silva M, Rodriguez-Merchan E (2004) Hemophilic arthropathy. *J Am Acad Orthop Surg* 12:234
4. Rodriguez-Merchan EC, Quintana M, Delacorte RH, Coya J (2007) Radioactive synoviorthesis for the treatment of haemophilic synovitis. *Haemophilia* 13:32-37
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Conclusions:

- The earlier the arthropathy, the better the result.
- Rifampicin can decrease haemarthroses frequency.
- Small joints have better results than large joints.
- A choice for patients with recurrent haemarthroses or inhibitors.

