

The arthroscopic treatment of cartilage-lesions of the knee joint

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Diz ekleminin kırık ve lezyonlarının artroskopik tedavisi

Ekim 1985 den Aralık 1990'a kadar medial veya lateral kompartmanında veya her ikisinde de kondropat olan 65 hastayı artroskopik ameliyatla tedavi ettim.

Bazı vakalarda patellofemoral kondropati de vardı. Stage, Outherbridge'e göre 2 ve 3 idi. Tip kısmen primer yüzeyel, kısmen bazal ayrışma idi. Kullanılan teknik bazı artroskopik cerrahların tecrübelerinin kombinasyonu idi. Postop tedaviye özel bir dikkat verildi. Sonuç olarak bu girişim çoğu hasta için tatminkar bulundu. Sonuç kötüden, kullanılabilir bir eklem sağlanması şeklindeydi.

Anahtar kelimeler: Diz ekleminde kırık ve lezyonları, artroskopi

Form Oct. 1985 to Der. 1990 I arthroscopically treated 65 patients with medial, lateral or combined compartment chondropathy.

Some cases also had patello femoral chondropathy. They were staged as 2 and 3 acc. to outhridge. The types were in some cases primary superficial and in others basal separation. Technique used was a combination of the experiences of some arthroscopic surgeons. Special attention was taken about the postoperative treatment. As a result, this procedure is satisfactory for most patients. The result is to make a useful joint out of a bad one.

Key words: Cartilage lesion of the knee joint, arthroscopy

From Oct. 1985 to Dec. 1990 I treated 62 knee joints, 22 male and 40 female. All except one had cartilage-lesions stage 3 acc. to Goodfellow et al, in the medial or lateral compartment or both, specially on the femur condyle. All knees showed more or less synovitis with effusion and as an important factor, for deterioration of chondropathies, a slight medial and lateral instability in stretched position. Nobody had a prearthrotic varus or valgus deformity. In addition to the cartilage-lesion, meniscal tears, most of them degenerative, were seen in 29 cases. 11 showed a weakness and spreading of meniscal tissue. The cartilage of the patella was hurt in 38 cases, 14 of them stage 1- 2 acc. to Goodfellow. 6 showed a lateral subluxation. 28 patients declared an injury of the knee joint in case-history, either distortion or contusion or both. In these cases, a basic lesion was seen outside of the main loading area, often in the posterior part of the femurcondyl. If the patella got a blow, sometimes the cartilage was loosen from the bone in a breadth of 5 mm localised on the proximal pole.

Method

Arthroscopies were made in Swedish Technique acc. to Gillquist. The operative proceeding followed O'Conner and Heshmat Shariaree. I did not renounce

bleeding points and used the technique of Menapace for it, that is the spotted opening of the tidemar-area with an abrader-burr. Steep margins of the cartilage were adjusted with a ring-curette. Torn and cleaved menisci were resected partially, weak and spreaded menisci were trimmed. In 6 cases, a lateral release was necessary. Heavy synovitis, most localised in the anterior and posterior part of the knee joint was, treated with partial synovectomy. Sometimes it was necessary to do it at first to get a good view in the knee joint. Sclerotic parts of the fatpad were resected.

The postoperative treatment

This is an important point. At first, my patients got an elastic bandage. They were ordered to use a passive, manual working motion-splint all 2 hours for 2 to 5 minutes in the pain free. The end of bedrest was 24 hours after op. Walking was ordered without weightbearing with aid of armcrutches and sole touching. 48 to 72 hours after op. suctiondrain was removed. At this time a Ganu Syncro 680 kneebrace was applied and was used till 4-6 weeks after start of weightbearing. This brace improves the stability of the knee joint without disturbing its physiological mechanics. Beginning of weightbearing was dependent upon

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the largeness of the cartilage lesions.

For a hurt area of R	2 cm ²	4 weeks
	to 5 cm ²	6 weeks
	to 8 cm ²	8 weeks
	over 8 cm ²	12 weeks

Training: Till weightbearing no powertraining was allowed, only perpendicular exercises 5 times daily and cycling without resistance and without full extension of the knee joint were prescribed. After start of weightbearing, the periarthroscopic training acc. to Inga Arvidson began. Further, 6 injections of an chondroprotective substance were applied intrarticular.

Results

It is impossible to make here a randomized study, because the known and unknown parameters are to manifold. Still you can see in the following trends and draw ideas.

The last examination was in 1991. For the judgement I selected a simple classification (Table 1).

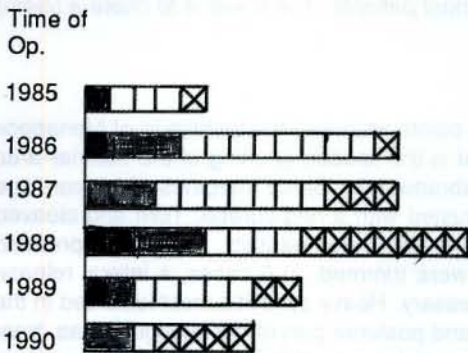


Table 1: 1 Results

Group 1, white marked, has no pain and no restriction of the personal activities. The cases with the crossed sign make sport against my recommendation, like mountain tracking, bycing, tennis, skiing, scating bowling and stockshooting.

Group 2, grey marked, has restrictions in the personal activities, pain after overstrain, but till now a medical treatment was not necessary. People said, the knee is better, but no good. I see that like that.

Group 3 are the worse cases, black marked.

Casuistic of worse cases

1. 59 years old, female, had a lesion stage 4 acc. to Goodfellowin in all compartments of the knee joint. In my opinion there was no indication for debride-ment, but the patient had the explicit desire to try it. 1

year later she got a TEP.

2. And 3. are similar cases.

62 years old, female, with a lesion of 6 cm² of the medial femurcondyl and a superficial lesion stage 1-2 of the patella-cartilage without any bounds. In that area did nothing. She got pain. About 1 year later a colleague did the second look and found a heavy lesion of the patella-cartilage. The lesion of the femurcondyle was filled with fibrocartilage.

42 years old, female, had a 5 cm² lesion of the medial femurcondyle and a basic lesion of the patellar cartilage stage 1-2. She also got pain. You may notice, that 12 other similar cases are distributed in group 1 and 2. 4.

3. 51 years old, female, with a 5 cm² lesion of the medial femurcondyl and a superficial lesion of the patella-cartilage stage 1. She had an overweight of more than 10% and not time for recovery. She had to start a hard work as gardenworker 4 weeks after op. About 2 years later she got much pain in her knee joint with an effusion. Local and physical treatment was necessary. After loss of the work the knee joint seems to be better.

4. At last a 67 year old man with a lesion of 8 cm² medial and 3 cm² lateral had a normal postoperative course over more than 3 months. Than he got acute pain without any reason. The incontestable diagnosis was Osteoalgodystrophy. Patient didn't believe that and went to a surgeon without knowledge of arthroscopy and it's complications. He made a partial endoprosthesi with a pain full postoperative course. This is the only one case with a complication in that series. Nobody had an infection.

Remarks to group 2: In my opinion this patients are potentially to change for the worse. They were painfree, a short time after op. had lesions of 8 cm² or more and an overweight too.

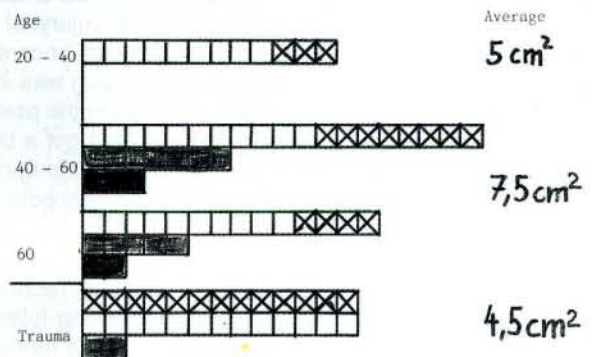


Table 2: A) Age and results, average of Hurt area
B) Trauma in case-history

Table 2 shows 2 different topics: The first three columns represent the age and results. Here the people between 20 and 40 seems to have an advantage over the older patients, but they had smaller lesions too. In the age between 40 and 90 is no difference. The last column shows all patients with a trauma in the case-history. They have an advantage over

those without trauma. Also here, the lesions were smaller.

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