

Supplementary article data

6-year follow-up of 84 patients with cartilage defects in the knee

Knee scores improved but recovery was incomplete

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Table 4. Various tests conducted at follow up to assess knee function. Patients were grouped based on the types of procedures performed

| Cartilage repair: ^a Ligament/meniscus surgery: | Subgroup 1 | Subgroup 2 | Subgroup 3 | Subgroup 4 | All patients (n = 84/98) ^b Mean (SD) |
|--|--------------------------------|---------------------------------------|---------------------------------------|--|---|
| | No (n = 19/25) Mean (SD) | No Yes (n = 35/39) Mean (SD) | Yes No (n = 18/21) Mean (SD) | Yes Yes (n = 12/13) Mean (SD) | |
| Lysholm | 71 (23) | 83 (16) | 75 (24) | 67 (24) | 76 (21) |
| Tegner ^c | 3.7 (2.2) | 4.9 (1.6) | 4.4 (1.6) | 3.8 (2.5) | 4.3 (1.9) |
| KOOS Pain | 72 (22) | 82 (19) | 80 (21) | 72 (29) | 78 (22) |
| KOOS Symptoms | 72 (22) | 78 (20) | 76 (17) | 67 (24) | 75 (21) |
| KOOS Activities of daily life | 83 (20) | 89 (17) | 87 (16) | 79 (26) | 86 (19) |
| KOOS Sport and recreation | 55 (34) | 68 (28) | 63 (33) | 48 (39) | 61 (33) |
| KOOS Knee-related quality of life | 55 (27) | 64 (27) | 64 (24) | 54 (28) | 61 (26) |
| IKDC | 60 (24) | 70 (21) | 69 (24) | 59 (29) | 66 (23) |
| Cincinnati | 67 (27) | 76 (17) | 71 (25) | 62 (28) | 71 (23) |
| SF36 Physical Function | 71 (22) | 83 (17) | 80 (23) | 70 (28) | 78 (22) |
| SF36 Role Physical | 75 (25) | 86 (22) | 92 (14) | 73 (32) | 83 (24) |
| SF36 Bodily Pain | 62 (24) | 78 (24) | 73 (26) | 65 (33) | 71 (26) |
| SF36 General Health | 72 (20) | 81 (19) | 75 (21) | 77 (24) | 77 (20) |
| SF36 Vitality | 58 (20) | 71 (18) | 66 (22) | 61 (24) | 65 (21) |
| SF36 Social Function | 88 (14) | 91 (15) | 93 (15) | 84 (23) | 90 (16) |
| SF36 Role Emotional | 94 (12) | 93 (14) | 97 (6) | 91 (17) | 94 (13) |
| SF36 Mental Health | 86 (10) | 84 (12) | 87 (7) | 83 (15) | 85 (11) |
| Single leg jump: ^d | | | | | |
| 1. > 90 % | 9 | 15 | 6 | 5 | 35 |
| 2. 76–90% | 1 | 7 | 3 | 2 | 13 |
| 3. 50–75% | 1 | 4 | 1 | 1 | 7 |
| 4. < 50% | 0 | 3 | 0 | 1 | 4 |

^a Cartilage repair was defined as: an autologous chondrocyte implantation (with a preceding biopsy), an osteochondral cylinder transfer, microfracture, or fixation of osteochondral fragment.

^b Refers to the number of patients who attended follow up in relation to the number of patients at baseline.

^c Tegner activity score: Categorical variable 1-10 (10= highest level).

^d Single leg jump: Categorical variable 1–4 (average one-leg jump distance with affected knee/distance with contra-lateral knee = 100%). All other scores are numeric variables 0–100 (100 = best score).

Abbreviations: KOOS= Knee injury and Osteoarthritis Outcome Score; ADL= activities of daily life; QOL=quality of life; IKDC= International Knee Documentation Committee's Subjective Knee Form; Cincinnati= Cincinnati Knee Rating System; SF36= Short Form 36 Health Survey.

Table 5. Linear regression analysis shown for the main outcome variable: "Change in ICRS functional score". First a univariate regression was made for the following possible predictors at baseline: area of the cartilage lesion, location of the cartilage lesion, additional ligament or meniscus surgery and cartilage surgery. Then a multivariate analysis was made for these 4 variables combined. Finally, a second multivariate analysis was made adjusting for age at the start of symptoms, age at baseline, sex and BMI

| | Univariate | | | | Multivariate (first 4 variables) | | | | Multivariate (all variables) | | | | | | |
|-------------------------------|------------|--------|---------|----------------|----------------------------------|--------|---------|----------------|------------------------------|--------|---------|----------------|-------|-----|-------|
| | B | 95% CI | p-value | R ² | B | 95% CI | p-value | R ² | B | 95% CI | p-value | R ² | | | |
| Possible predictors: | | | | | | | | | | | | | | | |
| Area of cartilage lesion | -0.038 | -0.27 | 0.20 | 0.7 | 0.001 | -0.075 | -0.33 | -0.18 | 0.6 | 0.015 | -0.052 | -0.34 | 0.24 | 0.7 | 0.017 |
| Location of cartilage lesion | -0.026 | -0.16 | 0.11 | 0.7 | 0.002 | -0.011 | -0.15 | 0.13 | 0.9 | | 0.016 | -0.14 | 0.17 | 0.8 | |
| Ligament or meniscus surgery | -0.014 | -0.50 | 0.47 | 1.0 | <0.001 | 0.012 | -0.50 | 0.52 | 1.0 | | -0.012 | -3.24 | -3.24 | 1.0 | |
| Cartilage repair | 0.205 | -0.29 | 0.71 | 0.4 | 0.009 | 0.256 | -0.30 | 0.82 | 0.4 | | 0.204 | -0.34 | 0.24 | 0.5 | |
| Possible confounding factors: | | | | | | | | | | | | | | | |
| Age at the start of symptoms | | | | | | | | | | | -0.007 | -0.14 | 0.17 | 0.7 | |
| Age at baseline | | | | | | | | | | | 0.008 | -0.61 | 0.58 | 0.7 | |
| Sex | | | | | | | | | | | -0.169 | -0.40 | 0.81 | 0.6 | |
| Body Mass Index | | | | | | | | | | | 0.018 | -0.05 | 0.04 | 0.6 | |