**Participant Flow**

20 complete 1 year follow-up

20 complete 1 year follow-up

246 ineligible

14 withdrawn due to non-inflamed synovium

53 not enrolled (21 declined, 25 after recruitment target met, 7 transferred to operating room prior to consent)

40 randomised

54 enrolled

107 eligible

353 patients screened

20 assigned synovectomy

20 assigned no synovectomy

**Baseline Characteristics**

|  |  |  |
| --- | --- | --- |
|  | No Synovectomy (n=20) | Synovectomy(n=20) |
| Sex |
| Male n (%) | 13 (65%) | 16 (80%) |
| Female n (%) | 7 (35%) | 4 (20%) |
| Age in years (range) | 67.5 (44.6-83.3) | 69.1 (54.6-85.4) |
| Average number of co-morbidities mean (SD) | 1.4 (1.1) | 1.5 (1.4) |
| Side of Operation |
| Right n (%) | 12 (60%) | 7 (35%) |
| Left n (%) | 8 (40%) | 13 (65%) |
| BMI (kg/m2) mean (SD) | 28.7 (3.2) | 30.1 (3.4) |

SD- Standard deviation

**Outcome Measures**

Primary outcomes

|  |  |  |
| --- | --- | --- |
|  | Pre-operativeHaemoglobin (g/l) | Day one post-operativeHaemoglobin (g/l) |
| No synovectomy | 138 | 118 |
| Synovectomy | 141 | 117 |

Secondary outcomes

**Range of movement in degrees**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Pre-operative | Six weeks post-operative | One year post-operative |
| No synovectomy | 105 | 100 | 114 |
| Synovectomy | 109 | 98 | 114 |

**WOMAC scores one year post-operatively**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | No synovectomy  | Synovectomy | Relative risk (95%CI) | P value |
| Pain | 78·6 (21·0) | 83·9 (21·2) | -5·26 (-19·20 to 8·67) | 0·448 |
| Function | 74·3 (19·3) | 84·6 (16·6) | -10·29 (-28·30 to 3·22) | 0·131 |
| Stiffness | 76·3 (19·5) | 80·1 (15·3) | -3·76 (-15·86 to 8·34) | 0·531 |

**SF-36 scores one year post-operatively**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **No synovectomy** | **Synovectomy** | **Relative risk (95%CI)** | **P value** |
| Physical functioning | 60.0 (26·2) | 74.1 (25.2) | -14.10 (-31.29 to 3.08) | 0.105 |
| Role-physical | 64.5 (33.1) | 77.6 (29.0) | -13.20 (-33.60 to 7.30) | 0.201 |
| Bodily pain | 59.2 (30.8) | 72.3 (25.1) | -13.11 (-31.62 to 5.41) | 0.160 |
| General health | 66.3 (21.7) | 61.7 (23.1) | 4.55 (-10.22 to 19.31) | 0.536 |
| Vitality | 60.2 (18.3) | 64.5 (23.4) | -4.28 (-18.12 to 9.57) | 0.534 |
| Social functioning | 71.1 (24.7) | 84.9 (23.0) | -13.82 (-29.54 to 1.91) | 0.083 |
| Role-emotional | 86.8 (25.8) | 82.0 (30.1) | 4.82 (-13.63 to 23.28) | 0.599 |
| Mental health | 77.9 (18.5) | 80.9 (17.5) | -2.96 (-14.82 to 8.90) | 0.616 |

SD- Standard deviation

**EQ-5D: Visual analogue score**

|  |  |  |  |
| --- | --- | --- | --- |
|  | Pre-operative | Six weeks post-operative | One yearpost-operative |
| No synovectomy | 77.55 | 78.75 | 85.62 |
| Synovectomy | 77.05 | 79.30 | 81.00 |

**Patient satisfaction from surgery score**

**No synovectomy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Overall | Recreation | Activities of daily living | Pain |
| Very satisfied | 67 | 61 | 67 | 67 |
| Somewhat satisfied | 22 | 17 | 17 | 22 |
| Somewhat dissatisfied | 5 | 17 | 11 | 11 |
| Very dissatisfied | 5 | 5 | 5 | 0 |

**Synovectomy**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Overall | Recreation | Activities of daily living | Pain |
| Very satisfied | 81 | 65 | 76 | 76 |
| Somewhat satisfied | 13 | 35 | 18 | 18 |
| Somewhat dissatisfied | 6 | 0 | 6 | 6 |
| Very dissatisfied | 0 | 0 | 0 | 0 |

**Adverse Events**

|  |  |  |
| --- | --- | --- |
|  | No synovectomy (n=20) | Synovectomy (n=20) |
| Total adverse events | 3 | 7 |
| Serious adverse events |
|  Death | 0 | 0 |
|  Life threatening | 0 | 0 |
|  Admission to hospital- Constipation | 0 | 1Resolved with laxatives |
|  Admission to hospital- superficial wound infection | 0 | 1Resolved with antibiotics |
| Adverse events |
|  Suspected DVT (excluded) | 1 | 2 |
|  Suspected DVT (confirmed) | 0 | 0 |
|  Hip pain | 1 | 0 |
|  Nausea | 0 | 1 |
|  Wound problem | 1 | 1 |
|  Urinary tract infection | 0 | 1 |