## EXAMINATION OF DIFFERENT SURGICAL APPROACHES IN TERMS OF QUALITY OF LIFE IN THE EARLY POSTOPERATIVE PERIOD AFTER TOTAL HIP ARTHROPLASTY

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Several types of surgical approaches are available to perform total hip arthroplasty, however, this can lead to differences in the early postoperative period. The aim of our study was to compare anterior and anterolateral surgical approaches according to shortterm quality of life in patients undergoing total hip arthroplasty.

#### **METHODS**

Patients were selected by simple convenience sampling technique from the Department of Orthopaedics Clinical Centre of the University of Pécs and the Da Vinci Private Clinic (Pécs, Hungary). Two international questionnaires, the Oxford Hip Score (OHS) and the SF-36 questionnaire were completed preoperatively and at postoperative 6th week.

|                 |                           | Anterior surgical approach |        | Anterolateral surgical approach |        | n valua        |
|-----------------|---------------------------|----------------------------|--------|---------------------------------|--------|----------------|
|                 |                           | n                          | %      | n                               | %      | <i>p</i> vanue |
|                 | Number of persons         | 177                        | 100%   | 161                             | 100%   |                |
| Participants N  | Number of persons (male)  | 92                         | 51.98% | 63                              | 39.13% | 0.018          |
| Ν               | umber of persons (female) | 85                         | 48.02% | 98                              | 60.87% | 0.018          |
|                 | Mean age                  | 64.51                      |        | 67.01                           |        | 0.018          |
|                 | <45                       | 12                         | 6.90%  | 1                               | 0.63%  | 0.003          |
| Age             | 46-64                     | 66                         | 37.93% | 53                              | 33.13% |                |
|                 | 65<                       | 96                         | 55.17% | 106                             | 66.25% | 0.039          |
|                 | Underweight               | 0                          | 0      | 0                               | 0      |                |
| DMI             | Normal                    | 24                         | 26.97% | 16                              | 22.22% |                |
| DIVII           | Overweight                | 31                         | 34.83% | 29                              | 40.28% |                |
|                 | Obesity                   | 34                         | 38.20% | 27                              | 37.50% |                |
|                 | Village                   | 20                         | 11.30% | 37                              | 22.98% | 0.004          |
|                 | City                      | 61                         | 34.46% | 56                              | 34.78% |                |
| Residence       | County seat               | 65                         | 36.72% | 50                              | 31.06% |                |
|                 | Capital                   | 11                         | 6.21%  | 2                               | 1.24%  | 0.018          |
|                 | Other                     | 20                         | 11.30% | 16                              | 9.94%  |                |
|                 | Primary                   | 12                         | 6.78%  | 32                              | 19.88% | <0.001         |
| Education       | Secondary                 | 74                         | 41.81% | 97                              | 60.25% | 0.001          |
|                 | Higher                    | 91                         | 51.41% | 32                              | 19.88% | <0.001         |
|                 | Intellectual              | 51                         | 28.81% | 13                              | 8.07%  | <0.001         |
|                 | Light physical            | 18                         | 10.17% | 10                              | 6.21%  |                |
| Occupation      | Hard physical             | 11                         | 6.21%  | 14                              | 8.70%  |                |
|                 | Pensioner                 | 95                         | 53.67% | 111                             | 68.94% | 0.004          |
|                 | Other                     | 2                          | 1.13%  | 13                              | 8.07%  | 0.002          |
|                 | Government employee       | 17                         | 9.60%  | 16                              | 9.94%  |                |
|                 | Privately employed        | 25                         | 14.12% | 17                              | 10.56% |                |
| Employee status | Entrepreneur              | 46                         | 25.99% | 6                               | 3.73%  | <0.001         |
|                 | Other                     | 89                         | 50.28% | 122                             | 75.78% | <0.001         |
|                 | Married                   | 115                        | 64.97% | 92                              | 57.14% |                |
|                 | In a relationship         | 14                         | 7.91%  | 8                               | 4.97%  |                |
| Marital status  | Single                    | 9                          | 5.08%  | 8                               | 4.97%  |                |
|                 | Divorced                  | 18                         | 10.17% | 19                              | 11.80% |                |
|                 | Widow                     | 21                         | 11.86% | 34                              | 21.12% | 0.021          |

#### RESULTS

A total of 338 patients participated in our study (155 male, 183 female, mean age: 65.70 years) (Table 1). Among them 177 patients were operated by anterior 161 approach and patients by anterolateral approach. Patients operated with anterior approach showed significant improvement in both the Oxford Hip Score and the SF-36 questionnaire by postoperative 6th week (OHS: from 20.89±9.936 35.31±8.295; **SF-36** to Physical Health: from 34.29±19.75 to 61.83±20.46; SF-36 Mental Health: from 67.37±21.10 to 79.44±21.25; p<0.001). **Patients who underwent anterolateral** approach had significantly improved quality of life in the Oxford Hip Score and SF-36 Physical Health, but there was no significant increase in the SF-36 Mental Health score (OHS: from 16.39±9.083 to 29.74±9.010; SF-36 Physical Health: from 26.33±16.575 to 46.27±17.68; p<0.001; SF-36 Mental Health: from 70.04±21.61 to 73.64±23.49; p=0.107) (Figure 1-3). Except for the preoperative Mental Health score, patients operated with anterolateral approach had significantly lower scores in all cases.

Table 1. Sociodemographic characteristics of total hip arthroplasty patients operated on with anterior and anterolateral approach



Figure 1. Changes in the Oxford Hip Score (OHS) in patients with anterior and anterolateral surgical approach



Figure 2. Changes in the SF-36 Physical Health Score in patients with anterior and anterolateral surgical approach



#### CONCLUSIONS

Quality of life improved for both the anterior and anterolateral surgical approaches (with the exception of the SF-36 Mental Health score for anterolateral approach). The anterior surgical approach led to a greater improvement in quality of life according to the SF-36 questionnaire. SF-36 MH preoperative SF-36 MH 6th week

—Anterior approach —Anterolateral approach

Figure 3. Changes in the SF-36 Mental Health Score in patients with anterior and anterolateral surgical approach

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