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TOTAL HIP ARTHROPLASTY AND MENTAL HEALTH STATUS

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Purpose. Total hip arthroplasty (THA) effectively restores function and alleviates pain in patients with end-stage hip osteoarthritis. Pain affects mood through its effect on disability and fatigue. Few studies have examined mental health as a consequence of pain or function after THA. We assessed change in mental health 1-year post-surgery, and examined whether change in pain and function predict change in mental health.

Methods. We used data from a prospective THA registry that began in 1996 at a large public Geneva University hospital. We included surgeries performed 2010 and 2012-2014, with demographic information, body mass index (BMI), co-morbidities, baseline and 1-year post-surgery WOMAC pain and function scores, and the SF-12 mental health component score (MCS). The pain, function, and MCS scores were normalized and ranged from 0-100; increasing score indicating better outcome. We calculated descriptive statistics, and used multivariable linear regression to predict 1-year change in MCS.

Results. Of 610 participants, mean (SD) age was 68.5 (11.8) years and BMI of 26.9 (4.9), 53% were women. Mean MCS was 44.7 (11.2) at baseline and 47.5 (10.5) at 1-year post surgery; average 1-year change was 2.8 (95% CI 1.9-3.6). WOMAC pain score was 39.6 (18.3) at baseline and 83.8 (20.4) at 1-year post surgery; 1-year change was 44.2 (95% CI 42.4-46.0). Corresponding WOMAC function was 40.2 (18.8) and 78.3 (22.1); 1-year change was 38.1 (95% CIs 36.2-40.0). On average, a 10-point increase in 1-year change in pain score was associated with a 0.7 point increase in the adjusted 1-year change in MCS (95% CI 0.2-1.1). The change in function was associated with a 0.9 point increase in 1-year change in MCS (95% CI 0.5-1.4).

Conclusion. Mental health significantly improved from baseline to 1-year post-surgery. Patients whose pain and function scores improved the most had also the greatest improvement in mental health.

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