

From mobility to intimacy: assessing the effects of periacetabular osteotomy on sexual function in patients with hip dysplasia

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INTRODUCTION: Developmental dysplasia of the hip (DDH) often leads to early osteoarthritis, causing pain and functional limitations that may impair sexual function. This study investigates the impact of periacetabular osteotomy (PAO) on sexual function in DDH patients, assessing changes from preoperative impairments to postoperative improvements. We hypothesized that: 1) PAO significantly improves sexual function in patients with symptomatic DDH in mid-term follow-up, mitigating preoperative impairments and enhancing postoperative outcomes; and 2) specific patient characteristics, including demographic, anatomical, and functional parameters, significantly correlate with the degree of sexual function impairment in patients with hip dysplasia both before and after periacetabular osteotomy.

METHODS: This retrospective study analyzed data from DDH patients treated with PAO between January 2015 and June 2017 at a single orthopaedic university centre. Data included radiological parameters and patient-reported outcome measures: International Hip Outcome Tool (iHOT-12), Subjective Hip Value, Hip disability and Osteoarthritis Outcome Score (HOOS) and its sub-scores, and Numeric Pain Scale. Sexual function was specifically assessed using iHOT-12 item nine, asking, "How much trouble do you have with sexual activity because of your hip?"

RESULTS: The study included 120 hips in 107 patients, predominantly female (85.1%). Radiological improvements post PAO were significant, with increases in the lateral centre-edge angle (LCEA) (16.6° (SD 6.0°) to 29.4° (SD 5.8°); $p < 0.001$) and reductions in the Tönnis angle (13.3° (SD 6.7°) to 1.2° (SD 7.4°); $p < 0.001$). Patient-reported outcomes demonstrated significant improvements postoperatively. Specifically, the iHOT-12 sexual function item showed substantial improvement from a mean preoperative score of 54.3 (SD 33.7) to a postoperative score of 75.0 (SD 27.1) ($p < 0.001$). Females reported significant enhancements in sexual function ($p < 0.001$), whereas improvements in males did not reach statistical significance ($p = 0.181$). Cases of under-correction (LCEA $< 25^\circ$) demonstrated significantly higher impairments in sexual function postoperatively compared with adequately corrected cases, indicating the importance of achieving optimal anatomical correction.

DISCUSSION AND CONCLUSION: PAO significantly enhances sexual function and overall hip-related quality of life in patients with symptomatic DDH. The findings underscore the necessity of precise surgical techniques and highlight that outcomes may vary by sex, suggesting a need for a sex-sensitive approach in both clinical practice and research.