Impact of Total Hip Arthroplasty on Sexual Activity and Life Satisfaction: An Underexplored Aspect

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ABSTRACT
Introduction: Sexual activity and life satisfaction are important outcomes for patients undergoing total hip arthroplasty (THA), yet they remain underexplored in routine assessments. **Materials and Methods:** Retrospective study with paired pre- and postoperative evaluations in 40 adults (20 women, 20 men). Variables analyzed included sexual activity (yes/no), hip pain limiting sexual activity (yes/no), pain during sexual activity (frequency), and sexual satisfaction (5-point scale). **Results:** The proportion of sexually active patients increased from 60% (24/40) to 75% (30/40), an absolute change of +15 percentage points. Patients reporting hip pain that limited sexual activity decreased from 12 (30%) to 6 (15%) (p = 0.031). Among the 30 patients who were sexually active postoperatively, 13.3% reported pain during sexual activity ("often"). High sexual satisfaction (scores 4–5) increased from 12.5% to 62.5%. Of the 10 patients (25%) who remained inactive after surgery, 7 attributed it to lack of desire or absence of a partner, and 3 to concern or fear. **Conclusions:** Total hip arthroplasty was associated with increased sexual activity, reduced limiting pain, and a marked improvement in reported sexual satisfaction. Prospective studies are needed to confirm these findings.
Keywords: Total hip arthroplasty; sexual activity; sexual satisfaction; pain; quality of life.
Level of Evidence: III

Impacto del reemplazo total de cadera en la actividad sexual y satisfacción de vida: un aspecto poco explorado

RESUMEN
Introducción: La actividad sexual y la satisfacción de vida son dimensiones relevantes para los pacientes sometidos a un reemplazo total de cadera; su evaluación específica sigue poco explorada. **Materiales y Métodos:** Estudio retrospectivo con mediciones pre y posoperatorias en 40 pacientes adultos (20 mujeres, 20 hombres). Se analizaron las siguientes variables: actividad sexual (sí/no), dolor de cadera limitante para la actividad sexual (sí/no), dolor durante la actividad sexual (frecuencia) y satisfacción sexual (escala 1-5). **Resultados:** La proporción de pacientes activos sexualmente aumentó del 60% al 75%, un cambio absoluto +15 puntos porcentuales. La cantidad de pacientes con dolor de cadera limitante para la actividad sexual disminuyó de 12 (30%) a 6 (15%) (p = 0,031). El 13,3% de los 30 pacientes activos después de la cirugía refirió dolor durante la actividad sexual ("a menudo"). La satisfacción sexual "alta" (niveles 4 y 5) aumentó del 12,5% al 62,5% de los pacientes. De los 10 (25%) que permanecieron inactivos después de la cirugía, 7 lo atribuyeron a la falta de deseo o a la ausencia de pareja y 3, a preocupación/miedo. **Conclusiones:** El reemplazo total de cadera se asoció con una mayor actividad sexual y menos dolor limitante, y un incremento marcado de la satisfacción sexual reportada. Se requieren estudios prospectivos para confirmar estos hallazgos.
Palabras clave: Reemplazo total de cadera; actividad sexual; satisfacción sexual; dolor; calidad de vida.
Nivel de Evidencia: III

INTRODUCTION

Total hip arthroplasty (THA) is a fundamental procedure in the treatment of degenerative joint diseases that significantly affect patients' quality of life. The main objectives of this surgery are to improve joint function and reduce pain, but other aspects of patients' daily lives also deserve attention, including sexual activity.[1,2]

Received on June 24th, 2025. Accepted after evaluation on August 30th, 2025 • Dr. EZEQUIEL LULKIN • ezelul@gmail.com https://orcid.org/0000-0002-4119-0483
How to cite this article: Lulkin E, Pereira S, Bidolegui F. Impact of Total Hip Arthroplasty on Sexual Activity and Life Satisfaction: An Underexplored Aspect. *Rev Asoc Argent Ortop Traumatol* 2025;901:464-471. https://doi.org/10.15417/issn.1852-7434.2025.90.5.2187

Sexual activity is a vital component of physical and emotional health, and its alteration can have significant consequences on overall well-being. In the scientific literature, the relationship between THA and sexual activity has been only marginally addressed, leaving a gap in understanding the postoperative impact on patients' lives.[3,4]

This retrospective study focused on evaluating how THA influences sexual activity and overall life satisfaction. Through the implementation of pre- and postoperative questionnaires, we sought to identify changes in the frequency of sexual activity, pain during sexual activity, and levels of sexual and overall satisfaction, thereby obtaining a broader perspective of surgical outcomes beyond improvements in joint function. The study aims to shed light on a little-explored topic.

MATERIALS AND METHODS

A retrospective study was conducted to evaluate the influence of THA on patients' sexual activity and overall life satisfaction. The research was based on standardized questionnaires that included a preoperative section answered by patient recall and a postoperative section (Appendix).

The study was approved by the Ethics Committee of Hospital Sirio Libanés before the surveys were administered.

Forty patients (20 men and 20 women), aged 60–75 years (mean age 70), were included. Inclusion criteria were a diagnosis of hip osteoarthritis and clinical indication for THA. Patients with previous hip surgery or medical conditions preventing participation in sexual activity were excluded. The sample was formed by stratified random sampling by sex (20 men and 20 women).

Two questionnaires were designed to collect data on sexual activity and overall satisfaction. The instruments were developed from the literature and clinical practice but lack formal psychometric validation. The sexual satisfaction scale was administered to all participants, regardless of their sexual activity, to assess satisfaction, desire, and expectations.

The preoperative questionnaire assessed sexual activity before surgery, frequency of pain during sexual activity, and level of sexual satisfaction. The postoperative questionnaire collected information on resumption of sexual activity, pain during sexual activity, and ratings of sexual and overall satisfaction after surgery.

Statistical Analysis

A descriptive analysis of quantitative and qualitative variables was performed. Continuous variables are expressed as mean and standard deviation, and categorical variables as frequency and percentage. Appropriate statistical tests were used to compare pre- and postoperative responses (paired design). Likert scales were treated as quasi-interval variables, applying the paired Student's t-test as an approximation and, where appropriate, the Wilcoxon test. Dichotomous variables (sexual activity and limiting pain) were analyzed using the exact two-tailed McNemar test. Two-tailed p-values and 95% confidence intervals are reported. A p-value <0.05 was considered statistically significant.

No comparisons between men and women were performed; this analysis will be considered in future studies. For sexual satisfaction (ordinal scale), a descriptive preoperative–postoperative transition matrix is presented.

RESULTS

The distribution by sex was equal (20 men and 20 women). Before surgery, 24 patients (60%) reported being sexually active. Of the 16 who were not active, 12 attributed their inactivity to hip pain or discomfort, and 4 to other reasons (e.g., lack of desire or absence of a partner). All 40 participants responded regarding preoperative sexual satisfaction: 10 (25%) reported low satisfaction (levels 1–2); 25 (62.5%) reported moderate satisfaction (level 3); and 5 (12.5%) reported high satisfaction (levels 4-5).

After surgery, 30 of the 40 patients (75%) reported being sexually active. Among the 10 (25%) who did not resume activity, the main reasons were lack of desire or not having a partner (70% of inactive patients; 17.5% of the total) and concerns or fear (30% of inactive patients; 7.5% of the total). Four of the 30 active patients

(13.3%) reported pain during sexual activity after surgery, all describing it as occurring "often." In this group, 27 (90%) rated their sex life as "improved," and 3 (10%) as "unchanged." Twenty-five of the 40 (62.5%) rated postoperative sexual satisfaction as "high" (levels 4–5) (Figures 1 and 2, Tables 1-3).

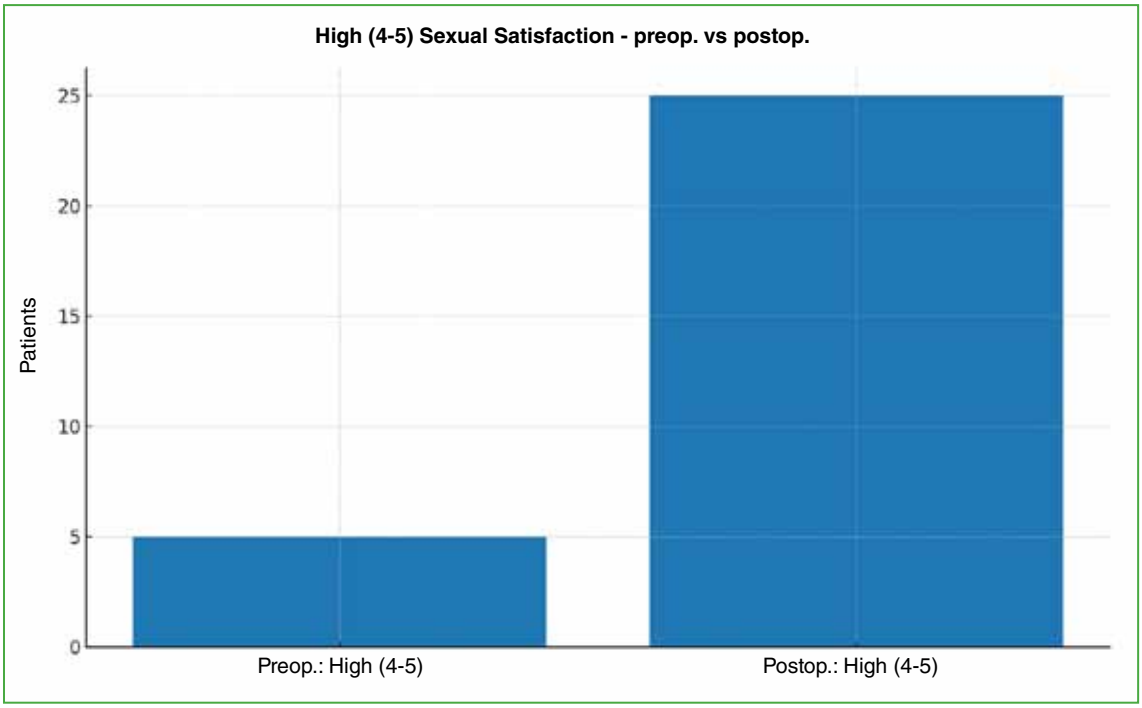

Figure 1. High sexual satisfaction (levels 4-5) pre vs. post (n = 40).

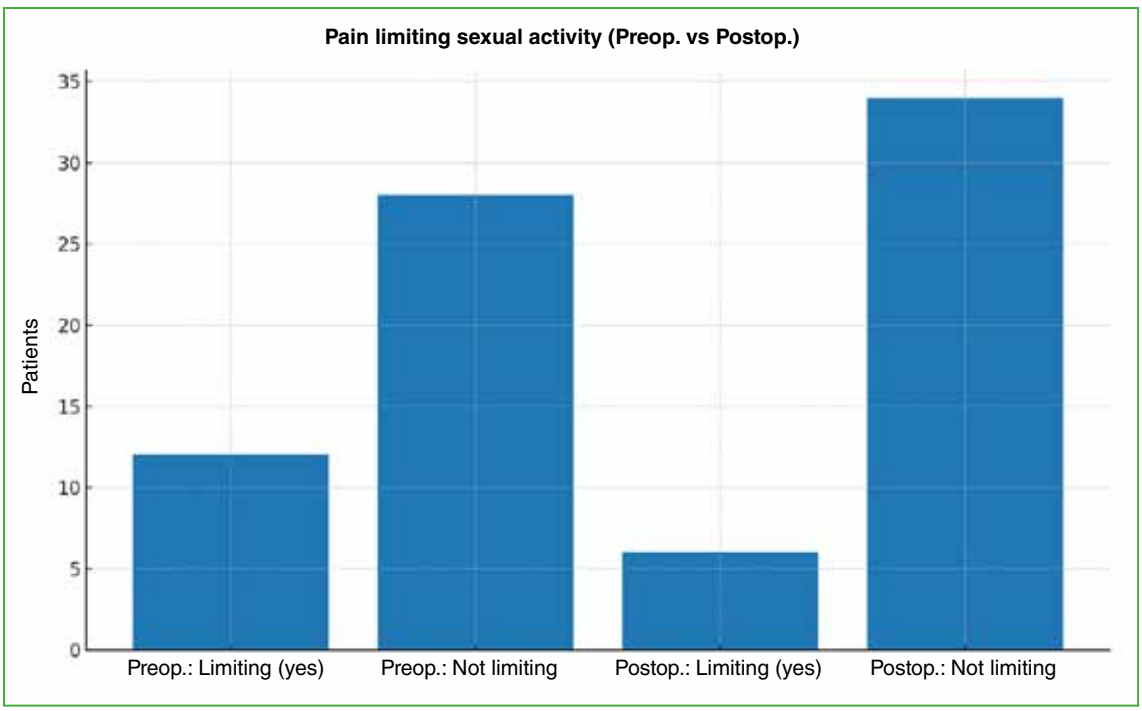

Figure 2. Pain limiting sexual activity (pre vs. post; n = 40). Exact McNemar test (two-tailed): p = 0.031.

Table 1. Preoperative and postoperative transitions in sexual activity (yes/no) (n = 40)

	Postop. active	Postop. inactive	Total
Preop. active	24 (60%)	0 (0%)	24 (60%)
Preop. inactive	6 (15%)	10 (25%)	16 (40%)
Total	30 (75%)	10 (25%)	40 (100%)

Values n (%), calculated for each row. n = 40. Paired contrast with McNemar test (exact, two-tailed): p = 0.031.

Table 2. Preoperative and postoperative transitions of pain limiting sexual activity (yes/no) (n = 40)

	Postop. non-limiting	Postop. limiting	Total
Preop. non-limiting	28 (70%)	0 (0%)	28 (70%)
Preop. limiting	6 (15%)	6 (15%)	12 (30%)
Total	34 (85%)	6 (15%)	40 (100%)

Same analysis scheme as Table 1 and same discordant pattern, exact McNemar test: p = 0.031.

Table 3. Preoperative and postoperative transitions in sexual satisfaction (levels 1-2, 3, and 4-5)

	Postop. Low (levels 1 and 2)	Postop. Moderate (level 3)	Postop. High (levels 4 and 5)
Preop. Low (levels 1 and 2) (n = 10)	10	0	0
Preop. Moderate (level 3) (n = 25)	0	5	20
Preop. High (levels 4 and 5) (n = 5)	0	0	5

3 x 3 paired matrix of preoperative →postoperative transitions. n = 40. Descriptive presentation.

DISCUSSION

The results of this retrospective study demonstrate improvements in sexual activity and overall life satisfaction after THA. Other studies have also examined the implications of THA on patients' sexual activity. In particular, Turhan and Buyuk[3] found that sexual quality of life improved significantly after bilateral THA, supporting our findings of improved postoperative sexual satisfaction. Yoon et al.,[4] in a study of Korean patients, also reported improvements in sexual activity and satisfaction after this surgery. However, they highlighted the insufficient patient education regarding the resumption of sexual activity, an aspect not specifically addressed in our study, but potentially relevant for future research and clinical practice.

Galloway et al.[5] studied sexual function and return to sexual activity in young adults after THA and reported significant improvement in sexual function, consistent with our findings of increased satisfaction and decreased pain. Similarly, Yang et al.,[6] in a study of young Chinese patients, reported improved sexual satisfaction scores in both men and women after THA, reinforcing our findings of postoperative improvement.

A systematic review by Neonakis et al.[7] confirmed that THA improves sexual satisfaction and reduces physical barriers limiting sexual activity. This strongly supports our observation that sexual activity is a major concern for patients and that THA is associated with improved outcomes. Bonilla et al.[8] investigated the impact of THA on women's sexual satisfaction and found significant postoperative improvements. However, they identified the need for more effective communication and counseling, an aspect also suggested by our finding that a small proportion of patients did not resume sexual activity due to concerns or fear.

Similarly, Wall et al.[9] emphasized the importance of addressing sexual activity both before and after THA. Their study found that 77% of patients believed their hip disease limited their sex life and considered resumption of sexual activity important. However, many felt they did not receive enough information about postoperative sexual activity, consistent with our observation of the need for better communication between patients and surgeons. Wall et al.[9] also highlighted that most surgeons fail to adequately discuss sexual activity with patients due to the sensitivity of the subject and the lack of standardized measures to evaluate sexual function after THA.

Our study confirmed the positive effect of THA on sexual activity and overall life satisfaction.

Unlike previous studies, we found that a small percentage of patients did not resume sexual activity after surgery due to concerns or fear, underscoring the need for healthcare professionals to provide more effective communication and counseling. Future research should address this gap in patient education to improve overall recovery and quality of life after surgery. In addition, the inclusion of validated outcome measures that incorporate sexual activity should be considered, to facilitate discussion of this sensitive issue between patient and surgeon.

Despite the limitations inherent in its retrospective design and sample size, the results obtained are statistically significant and provide a solid foundation for future research. Prospective studies with larger and more diverse samples are recommended to confirm these findings and to further explore the impact of THA on intimate relationships and body image.

CONCLUSIONS

This study provides evidence that THA not only improves mobility and relieves pain, but also has a positive effect on sexual activity and overall life satisfaction, which are fundamental aspects of comprehensive patient recovery.

Statement on generative AI and AI-assisted technologies in the writing process

During the preparation of this manuscript, the authors used AI to improve readability, language, and review statistical consistency. After using this tool, the authors reviewed and edited the content as necessary and assume full responsibility for the content of the publication.

Conflicts of interest: The authors declare no conflicts of interest.

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APPENDIX

Preoperative Questionnaire:

Were you sexually active before surgery?
[ ] Yes
[ ] No

If you were not sexually active, was it due to hip pain or discomfort?
[ ] Yes
[ ] No

If you experienced hip pain during sexual activity, how often did it occur?
[ ] Always
[ ] Often
[ ] Sometimes
[ ] Rarely

Did pain affect your desire for sexual activity?
[ ] Yes
[ ] No

On a scale from 1 to 5, how would you rate your sexual satisfaction before surgery? (1 = not satisfied at all, 5 = very satisfied)
[ ] 1
[ ] 2
[ ] 3
[ ] 4
[ ] 5

Postoperative Questionnaire:

After surgery, did you resume sexual activity?
[ ] Yes
[ ] No

If you have not resumed sexual activity, what is the main reason?
[ ] Pain or discomfort
[ ] Concern about damaging the prosthesis
[ ] Lack of desire
[ ] Medical advice
[ ] Relationship issues
[ ] Other reasons (please specify):_____

After surgery, have you experienced hip pain during sexual activity?
[ ] Yes
[ ] No

If you answered yes to pain, how often does it occur?
[ ] Always
[ ] Often
[ ] Sometimes
[ ] Rarely

Compared with before surgery, how would you rate your sex life?
[ ] Better
[ ] The same
[ ] Worse

On a scale from 1 to 5, how would you rate your sexual satisfaction after surgery?
[ ] 1
[ ] 2
[ ] 3
[ ] 4
[ ] 5

On a scale from 1 to 5, how would you rate your overall satisfaction with your quality of life after surgery?
[ ] 1
[ ] 2
[ ] 3
[ ] 4
[ ] 5