

Strategic Challenges of Hysterectomy in Benign Gynecological Pathology – Perspectives from a Systematic Review

Nicoleta Alina Mares^{1,2,3}, Alexandru Iordache^{1,2,4}, Niculae Iordache^{1,5,6}

¹Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

²PhD Student, Doctoral School, Carol Davila University of Medicine and Pharmacy, Bucharest, Romania

³Department of Obstetrics and Gynecology, Dr. I. Cantacuzino Clinical Hospital, Bucharest, Romania

⁴Department of Urology, Professor Dr. Th. Burgele Clinical Hospital, Bucharest, Romania

⁵Department of General Surgery, Sf. Ioan Clinical Emergency Hospital, Bucharest, Romania

⁶The Academy of Romanian Scientists, Bucharest, Romania

Abstract

Hysterectomy is the most common non-obstetric surgical procedure performed in women of all ages, representing a point of intersection between surgery and gynecology, with multiple possible approaches. The lack of a clear consensus on standardized selection criteria for benign pathology results in variability and decisions that may not accurately reflect the specific characteristics of each case. This is a narrative systematic review aimed at identifying and organizing the criteria reported in the literature regarding the selection of surgical techniques for hysterectomy, providing an informative foundation for an individualized and practical approach that supports evidence-based, personalized surgical decision-making. We performed a systematic search in the PubMed, Cochrane Library, and Embase databases between January 1, 2015, and June 1, 2025, considering only English-language randomized controlled trials. The search strategy included both controlled and free terms, combined using Boolean operators. We selected the eight most relevant studies, with a high level of confidence following the quality assessment and consistent findings with the specialized literature. The choice of the optimal surgical technique should be individualized, based on a thorough evaluation of each patient and the expertise of the medical team, to achieve the best possible functional outcomes and quality of life after the intervention.

Keywords: laparoscopic hysterectomy, vaginal hysterectomy, abdominal hysterectomy, benign gynecological pathology, RCT, hysterectomy approach