

TEN YEAR META-ANALYSIS: FIBROID MANAGEMENT

Laparoscopic Radiofrequency Ablation (Lap-RFA) demonstrated less blood loss, shorter hospitalization, and low reintervention and readmission rates.¹

On September 7th, **Yelena Havryliuk, MD**, of Weill Cornell Medical College, New York, NY, presented a ten-year (2006-2016) systematic review and meta-analysis on symptomatic fibroids at MIS Week 2017 hosted by The Society of Laparoendoscopic Surgeons, in San Francisco, CA

- Complete assessment of 143 articles
- Referenced 45 articles in analysis
- Compared:
 - Hysterectomy
 - Myomectomy
 - Uterine artery embolization (UAE)
 - Laparoscopic radiofrequency ablation (Lap-RFA)
 - Magnetic resonance-guided focused ultrasound (MRg-FUS)

REVIEW ARTICLE **JLS**

Symptomatic Fibroid Management: Systematic Review of the Literature

Yelena Havryliuk, MD, Robert Selton, MD, John J. Carlow, EdD, MPH, Barry D. Shaktman, MD

ABSTRACT

Background and Objectives: Symptomatic uterine fibroids are a societal and healthcare burden with no clear consensus among medical professionals as to which procedural treatment is most appropriate for each symptomatic patient. Our purpose was to determine whether recommendations can be made regarding best practice based on review and analysis of the literature since 2006.

Databases: A systematic search of journal articles relevant to the treatment of symptomatic uterine fibroids was performed within PubMed, clinical society websites, and medical device manufacturers' websites. All clinical trials published in English, representing original research, and reporting clinical outcomes associated with interventions for the management of symptomatic uterine fibroids were considered. Each article was screened and selected based on study type, content, relevance, American College of Obstetrics and Gynecology score, and internal external validity. Outcomes of interest were patient baseline characteristics, fibroid characteristics, procedural details, complications, and long-term follow-up. Random-effects meta-analyses were used to test the quantitative data. Assessment of 143 full-length articles through January 2016 produced 45 articles for the quantitative analysis. The weighted combined results from hysterectomy trials were compared with those from uterine-preserving fibroid studies (myomectomy, uterine artery embolization, laparoscopic radiofrequency ablation, and magnetic resonance-guided focused ultrasound).

Conclusion: We explored trends that might guide clinicians when counseling patients who need treatment of symptomatic fibroids. We found that fibroid therapy is trending toward uterine-conserving treatments and outcomes are comparable across those treatments. Since minimally invasive options are increasing, it is important for the clinician to provide the patient with evidence-based therapeutic strategies.

Key Words: Intervention, leiomyoma, Symptomatic fibroid, Uterine.

INTRODUCTION

Symptomatic uterine fibroids (leiomyomas or myomas) represent a significant societal and healthcare burden, and there is no clear consensus among medical professionals as to which treatment is appropriate for their symptomatic patients. These benign, solid myometrial tumors are the most common tumors found in women. They have an estimated cumulative incidence of up to 70% in white women and 80% in black women during the premenopausal years.¹ Severe symptoms may develop in 15 to 30% of cases, and the extent of symptoms depends on fibroid location, number, and size. Submucosal and intramural fibroids typically manifest with abnormal uterine bleeding, whereas subserosal and pedunculated fibroids usually present with bulk-related symptoms of pelvic pain and bowel or bladder dysfunction. Symptomatic patients may miss work and, overall, have lower quality of life than asymptomatic patients.² In addition, the presence of fibroids may lead to infertility and adverse pregnancy outcomes.^{3,4}

Annual direct and indirect costs of symptomatic fibroids in the United States may exceed \$34 billion.⁵ Of the more than 400,000 inpatient hysterectomies performed annually in the United States, the overwhelming indications are symptomatic leiomyomas.⁶ Although most women with symptomatic fibroids initially choose non-surgical management, this approach fails in many, and patients may then

Department of Obstetrics and Gynecology, Weill Cornell Medical College, New York, New York, USA (Dr Havryliuk, Selton, and Shaktman); University Medical Center, San Francisco, California, USA (Dr Carlow). The authors thank medical student Anshu Chawla for contribution to the initial research. JLS Medical, Inc. (Irvine, CA, USA) provided funding for research and statistical analysis. Dr Carlow is an independent statistical consultant to JLS Medical. The remaining authors report no conflict of interest. Address correspondence to: Yelena Havryliuk, MD, Department of Obstetrics and Gynecology, Weill Cornell Medical College, 520 First Ave Street, Suite 2100, New York, NY 10021. Telephone: 212-760-0171, Fax: 212-760-0712, Email: yelena.havryliuk@med.cornell.edu DOI: 10.4293/JLS.2017.00041 © 2017 by JLS, Journal of the Society of Laparoendoscopic Surgeons. Published by the Society of Laparoendoscopic Surgeons, Inc. July-September 2017 Volume 21 Issue 3 e2017.00041 1 JLS www.JLS.org

STUDY FINDINGS

	Lap-RFA	Myomectomy	UAE	Hysterectomy
Procedure Details & Early Follow Up				
Blood Loss	35.4 mL	175.5 mL	NA	269.3 mL
Length of Stay	0 days	2.0 days	2.4 days	2.2 days
Complications, major	1.7%	3.5%	2.7%	2.1%
Long Term Follow Up				
Duration of follow up	27.0 months	34.7 months	13.5 months	11.2 months
Number of patients	209 pts	689 pts	1423 pts	334 pts
Reintervention rate	5.2%	4.2%	14.8%	NA
Readmission rates	0.7%	2.7%	3.4%	7.4%
Symptom Severity (lower is better)	19.5	37	38	7.6
HQL (higher is better)	94.1	84.1	78.9	67.9

MRg-FUS results not included in table summary, are available in full text

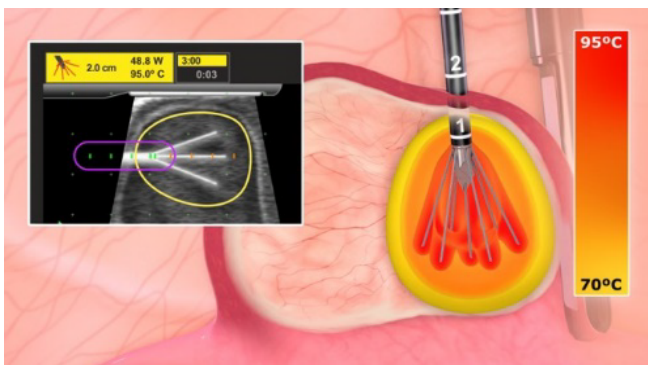
TEN YEAR META-ANALYSIS: FIBROID MANAGEMENT (CONTINUED)

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KEY TAKEAWAYS

- Mean estimated blood loss following hysterectomy and myomectomy exceeded 269 ml and 175 ml respectively, whereas Lap-RFA was 35 ml (8x less than hysterectomy)
- Hospitalization after hysterectomy, myomectomy and UAE ranged from a mean of 2.0 days to 2.4 days, whereas Lap-RFA and MRg-FUS were performed as outpatient procedures
- Weighted average reintervention after MRg-FUS and UAE ranged from 30.5% to 14.8% (at 13-14 months), respectively compared to Lap-RFA and myomectomy at 5.2% and 4.2% (at 27-35 months), respectively
- Readmission rates within 90 days of discharge for MRg-FUS, UAE and myomectomy were 74, 3.4 and 2.7%, respectively compared to Lap-RFA at 0.7%

LAPAROSCOPIC RADIOFREQUENCY ABLATION (LAP-RFA)



“Our analysis indicates that Lap-RFA is associated with low complication rates, minimal EBL, and low reintervention rates. In addition, patients reported major improvement in their HRQL and symptom severity scores compared to reports of more traditional interventions, such as hysterectomy, myomectomy, and UAE.”

ACESSA® PROCEDURE

- Minimally invasive, uterine sparing option for women
- Unlike many alternative interventions, the Acessa Procedure can treat nearly all types of fibroids, including those outside the uterine cavity and within uterine walls³
- The procedure requires no suturing of uterine tissue, and patients typically go home the same day and return to normal activities within 4-5 days²
- Over 4,000 women have been treated with the Acessa System⁴

Sources

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