

Peer-reviewed clinical evidence for excision surgery

Laparoscopic Excision Versus Ablation for Endometriosis-associated Pain: An Updated Systematic Review and Meta-analysis

. Journal of Minimally Invasive Gynecology, Volume 24, Issue 5, July–August 2017, Pages 747-756 , Jyotsna Pundir MD, Kireki Omanwa MRCOG, Elias Kovoov MD, Vishal Pundir MS, Gillian Lancaster PhD, Peter Barton-Smith MD

“12 months post-surgery, symptoms of dysmenorrhea, dyschezia, and chronic pelvic pain secondary to endometriosis showed a significantly greater improvement with laparoscopic excision compared with ablation.”

<http://www.sciencedirect.com/science/article/pii/S1553465017302637?via%3Dihub&sf117396416=1>

Excision has better five-year outcomes for patients

“Change in pain VAS scores during 5 years after the operation and rates of pregnancy, repeat surgery, and use of hormone therapy were evaluated. There was a reduction in all pain scores over the 5-year follow-up in both treatment groups. A significantly greater reduction in dyspareunia VAS scores was observed in the excision group at 5 years ($p = .03$ at univariate analysis, and $p = .007$ at multivariate analysis). More women in the ablation group continued to receive medical treatment of endometriosis at 5 years ($p = .004$). “ Presented in part at the 23rd Annual Scientific Meeting of the Australasian Gynaecological Endoscopy Society, March 7–9, 2013, Brisbane, Australia. Martin Healey, MD, Claudia Cheng, MB, BS, Harvinder Kaur, MB, BS

[http://www.jmig.org/article/S1553-4650\(14\)00248-9/fulltext](http://www.jmig.org/article/S1553-4650(14)00248-9/fulltext)

How Many Surgeries Are Necessary for Definitively Treatment of Deep Endometriosis?

Instituto Fernandes Figuera- FIOCRUZ, Rio de Janeiro, Brazil, Open Communications 17—Laparoscopy . R. Dibi, M.A. Pinho de Oliveira, M. Nogueira, M. Muller, T. Soares, C. Souza, C. Crispi

Symptom relief after first surgical treatment in a referral center (center of excellence) was 86.1% compared to 37.5% with a general gyn.

“The complete laparoscopic excision of endometriosis performed in a Referral Center offers a good relief of symptoms, especially for patients with severe or debilitating symptoms. ***The excessive number of previous surgeries may be related to incomplete procedures, leading to a worse prognosis.*** Despite the complete surgery with expert staff, some patients have recurrence of symptoms, even with hormonal blockade, showing the inheritance of multifactorial disease.”

[http://www.jmig.org/article/S1553-4650\(12\)00992-2/fulltext](http://www.jmig.org/article/S1553-4650(12)00992-2/fulltext)

The effectiveness of laparoscopic excision of endometriosis

“Laparoscopic excision is currently the 'gold standard' approach for the management of endometriosis, and results may be improved with careful use of appropriate techniques and suitable adjuvant therapies.”

“Large, long-term, prospective studies and a placebo-controlled, randomized, controlled trial suggest that laparoscopic excision is an effective treatment approach for patients with all stages of endometriosis. The result of such laparoscopic excision may be improved if affected bowel, bladder and other involved structures are also excised. Adjuvant therapies such as the levonorgestrel intrauterine system and pre-sacral neurectomy may further improve outcomes. Ovarian endometrioma are invaginations of the uterine cortex, and surgical stripping of this cortex removes many primordial follicles. Despite this apparent disadvantage, stripping of the capsule is associated with better subsequent pregnancy rates and lower recurrence rates than the more conservative approach of thermal ablation to the superficial cortex.”

Current Opinion Obstetrics and Gynecology, 2004 Aug;16(4):299-303. University of Western Australia, School of Women's and Infants' Health, King Edward Memorial Hospital, Subiaco, Western Australia.

<https://www.ncbi.nlm.nih.gov/pubmed/15232483>

Does laparoscopic management of deep infiltrating endometriosis improve quality of life? A prospective study. Health Quality Life Outcomes. 2011 Nov 6;9:98. doi:

10.1186/1477-7525-9-98. Mabrouk M, Montanari G, Guerrini M, Villa G, Solfrini S, Vicenzi C, Mignemi G, Zannoni L, Frasca C, Di Donato N, Facchini C, Del Forno S, Geraci E, Ferrini G, Raimondo D, Alvisi S, Seracchioli R.

“Laparoscopic excision of DIE lesions significantly improves general health and psycho-emotional status at six months from surgery without differences between patients submitted to intestinal segmental resection or intestinal nodule shaving.”

<https://www.ncbi.nlm.nih.gov/pubmed/22054310>

Complete laparoscopic excision of endometriosis in teenagers: is postoperative hormonal suppression necessary?

Presented as an oral presentation at the American Association of Gynecologic Laparoscopists (AAGL) Annual Conference, Las Vegas, Nevada, November 8-12, 2010; and a poster presentation at the World Symposium of Endometriosis Conference March 24-26, 2011. Patrick Yeung Jr., M.D. Ken Sinervo, M.D., Wendy Winer, R.N., Robert B. Albee Jr., M.D.

“Complete laparoscopic excision of endometriosis in teenagers—including areas of typical and atypical endometriosis—has the potential to eradicate disease. These results do not depend on postoperative hormonal suppression. These data have important implications in the overall care of teenagers, regarding pain management, but also potentially for fertility.”

[http://www.fertstert.org/article/S0015-0282\(11\)00335-9/abstract](http://www.fertstert.org/article/S0015-0282(11)00335-9/abstract)

The effects and effectiveness of laparoscopic excision of endometriosis: a prospective study with 2–5 year follow-up

Human Reproduction, Volume 18, Issue 9, 1 September 2003, Pages 1922–1927, [J.A. Abbott J. Hawe R.D. Clayton R. Garry](#), <https://doi.org/10.1093/humrep/deg275>

“Laparoscopic excision of endometriosis significantly reduces pain and improves quality of life for up to 5 years. The probability of requiring further surgery is 36%. Return of pain following laparoscopic excision is not always associated with clinical evidence of recurrence.”

<https://academic.oup.com/humrep/article/18/9/1922/708089/The-effects-and-effectiveness-of-laparoscopic>

Endometriosis is progressive

Koninckx PR, Meuleman C, Demeyere S et al. Suggestive evidence that pelvic endometriosis is a progressive disease, whereas deeply infiltrating endometriosis is associated with pelvic pain. Fertil Steril 1991; 55:759-765.

<https://www.ncbi.nlm.nih.gov/pubmed/2010001>

Surgical treatment of endometriosis leads to endothelial function improvement, resulting in reduction of cardiovascular risk. Hum Reprod. 2014 Jun;29(6):1205-1,

Santoro L1, D'Onofrio F, Campo S, Ferraro PM, Flex A, Angelini F, Forni F, Nicolardi E, Campo V, Mascilini F, Landolfi R, Tondi P, Santoliquido A.

<https://www.ncbi.nlm.nih.gov/pubmed/24777848>

Laparoscopic excision of lesions suggestive of endometriosis or otherwise atypical in appearance: relationship between visual findings and final histologic diagnosis.

Albee RB Jr, et al. J Minim Invasive Gynecol. 2008 Jan-Feb.

“When the surgical objective is complete eradication of endometriosis, the surgeon must be prepared to excise all lesions suggestive of endometriosis and tissue atypical in appearance as in most anatomic sites approximately 25% of atypical specimens proved to be endometriosis.”

<https://www.ncbi.nlm.nih.gov/m/pubmed/18262141/>

Conservative laparoscopic excision of endometriosis by sharp dissection: life table analysis of reoperation and persistent or recurrent disease. Fertility and Sterility [01

Oct 1991, 56(4):628-634] Dr. David Redwine

“The maximum cumulative rate of recurrent or persistent disease was 19%, achieved in the 5th postoperative year. Laparoscopic excision of endometriosis results in a low rate of minimal persistent/recurrent disease. The natural history of endometriosis after surgery suggests a rather static nature of the disease.”

Laparoscopic treatment of complete obliteration of the cul-de-sac associated with endometriosis: long-term follow-up of en bloc resection

Fertility and Sterility 2001 Aug;76(2):358-65, Redwine DB, Wright JT.

“Aggressive laparoscopic excision of endometriosis carried out in a specialist center offers good symptom relief, especially for those with severe or debilitating symptoms. To ensure complete removal of all disease, intestinal surgery is required in most patients with complete obliteration of the cul-de-sac.”

<https://www.ncbi.nlm.nih.gov/pubmed/11476786>

Excisional surgery versus ablative surgery for ovarian endometriomata: a Cochrane Review Human Reproduction, 2005 Nov;20(11):3000-7. Hart R1, Hickey M, Maouris P, Buckett W, Garry R.

“Laparoscopic excision of the cyst wall of the endometrioma was associated with a reduced rate of recurrence of the endometrioma [odds ratio (OR) 0.41, confidence interval (CI) 0.18-0.93], reduced requirement for further surgery (OR 0.21, CI 0.05-0.79), reduced recurrence rate of the symptoms of dysmenorrhoea (OR 0.15, CI 0.06-0.38), dyspareunia (OR 0.08, CI 0.01-0.51) and non-menstrual pelvic pain (OR 0.10, CI 0.02-0.56). It was also associated with a subsequently increased rate of spontaneous pregnancy in women who had documented prior subfertility (OR 5.21, CI 2.04-13.29). There is some evidence that excisional surgery for endometriomata provides for a more favourable outcome than drainage and ablation, with regard to the recurrence of the endometrioma, recurrence of symptoms and subsequent spontaneous pregnancy in women who were previously subfertile. Consequently this should be the favoured surgical approach.”

<https://www.ncbi.nlm.nih.gov/pubmed/16246860>

The Surgical Treatment of Severe Endometriosis Positively Affects the Chance of Natural or Assisted Pregnancy Postoperatively

Erin M. Nesbitt-Hawes, Neil Campbell, Peta E. Maley, Haryun Won, Dona Hooshmand, Amanda Henry, William Ledger, and Jason A. Abbott¹

University of New South Wales, Sydney, Australia, Royal Hospital for Women, Locked Bag 2000, Barker Street, Randwick, NSW 2031, Australia Received 27 September 2014; 12 January 2015 To report reproductive outcomes following laparoscopic surgical excision of histologically confirmed r-ASRM stage III-IV endometriosis. Women who had (excision) surgery to remove stage III-IV endometriosis and subsequently tried to conceive had a 73% chance of pregnancy, the majority within 12 months of index surgery.

<https://www.hindawi.com/journals/bmri/2015/438790/>

"Consensus on current management of endometriosis, Neil P. Johnson, Lone Hummelshoj, for the World Endometriosis Society Montpellier Consortium"

Previously the term ‘centre of excellence’ has been used (D’Hooghe and Hummelshoj, 2006) but we now agree that ‘centre (or network) of expertise’ is more appropriate. It was accepted that a centre/network of expertise would take differing forms in different settings, although consensus over precisely what form this would take (involving either a team, a network or a physical unit or centre where expertise is concentrated and

coordinated) was not reached. However, it was agreed that such centres/networks should ideally comprise a multi-disciplinary team approach with specialists who have undergone ***specific training in endometriosis, advanced surgeons with a high caseload of managing deep endometriosis*** (also known as deep infiltrating endometriosis, DIE), ***ready access to an endometriosis organization with substantial input on behalf of women*** and a ***track record of commitment to collaborative management and research***. As laparoscopic surgery will likely continue to be pivotal in the management of women with endometriosis, accreditation should be focused on the training and expertise of laparoscopic surgeons. The centre/network should have ***a transparent record of outcome-based success rates***. " Consensus on current management of endometriosis Neil P. Johnso, Lone Hummelshoj for the World Endometriosis Society Montpellier Consortium M.S. Abrao G.D. Adamson C. Allaire V. Amelung E. Andersson C. Becker K.B. Birna Árdal Human Reproduction, Volume 28, Issue 6, 1 June 2013, Pages 1552–1568, <https://academic.oup.com/humrep/article/28/6/1552/603470>

History of Excision Surgical Procedure

Laparoscopic Excision of Deep Fibrotic Endometriosis of the Cul-de-sac and Rectum
By Harry Reich M.D. FACOG.

<http://www.obgyn.net/endometriosis/laparoscopic-excision-deep-fibrotic-endometriosis-cul-de-sac-and-rectum - sthash.nxM44xzI.dpuf>

How is excision different than ablation?

What does it all mean? Excision, ablation and robotic assistance for removal of endometriosis - Tools of the Trade, September 19, 2016, Dr. Erin Nesbitt-Hawes - Endometriosis Australia's Medical Advisory Committee

<https://www.endometriosisaustralia.org/single-post/2016/09/19/What-does-it-all-mean-Excision-ablation-and-robotic-assistance-for-removal-of-endometriosis---Tools-of-the-Trade>