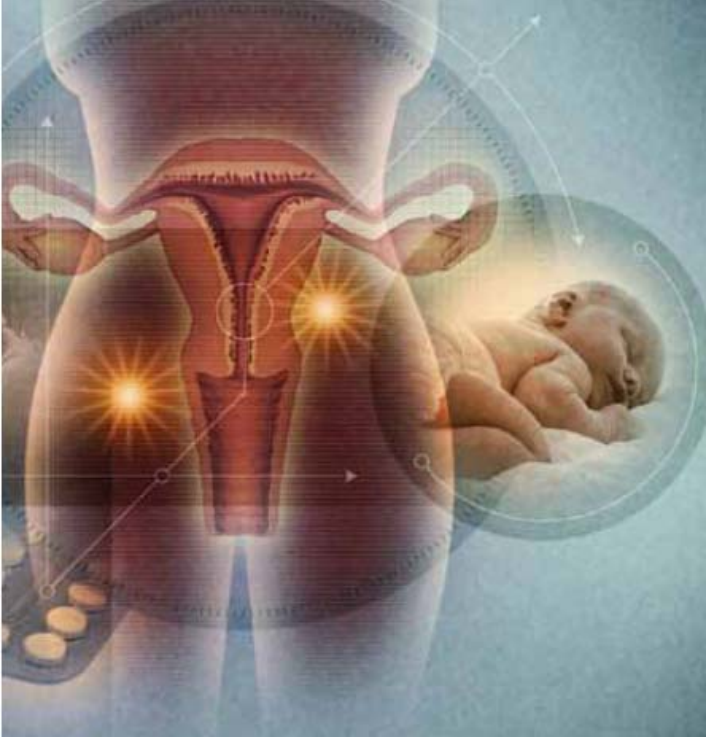


Endometriozis-Kronik pelvik ağrı:
Tanısal algoritma ve cerrahi tedavi

Doç.Dr. Bülent Berker

A.Ü.T.F. Kadın Hastalıkları ve Doğum AD.

ENDOMETRİOZİS: KLİNİK PROBLEM

- Üreme yaş grubu kadınların yaklaşık %10'nu etkilemekte
- İnfertil kadınların 1/3' ünde bulunmakta
- ABD' de histerektominin 2. en sık nedeni (%18)

ENDOMETRİOZİS: MALİYET

- In the United States, **the costs of health care and loss of productivity** associated with endometriosis have been estimated at approximately **$22 billion annually***

*Simoens S. Endometriosis: cost estimates and methodological perspective. H R Update 2007

ENDOMETRİOZİS: SEMPTOMLAR

- Pelvik ağrı **en sık semptom**
  - Dismenore
  - Disparoni
  - Nonsiklik ağrı
  - Dizüri
  - Diskezi
  - Diğer
- Over kistleri (endometrioma)
- İnfertilite
- Yaşam kalitesini olumsuz etkilemekte

ENDOMETRİOZİSLE İLİŞKİLİ KRONİK PELVİK AĞRI

- Gerçek insidans ?
  - %35-90
- Endometriozisde ağrının şiddeti:
  - implantın lokalizasyonu
  - invazyon derinliğine
  - hastalığın evresi ??

Olive DL. N England J Med 2001

- Gambone JC. Fertil Steril 2002

Evre ağrı ile korelasyon göstermiyor

Symptom	Stage I (n = 40)	Stage II (n = 28)	Stage III (n = 58)	Stage IV (n = 34)
Dysmenorrhea	73 %	86 %	72 %	85 %
Pelvic pain	38 %	46 %	36 %	41 %
Dyspareunia	30 %	25 %	36 %	29 %

- **Fedele, Fertil Steril 1990**

Staging: No Correlation with Pain or Fertility

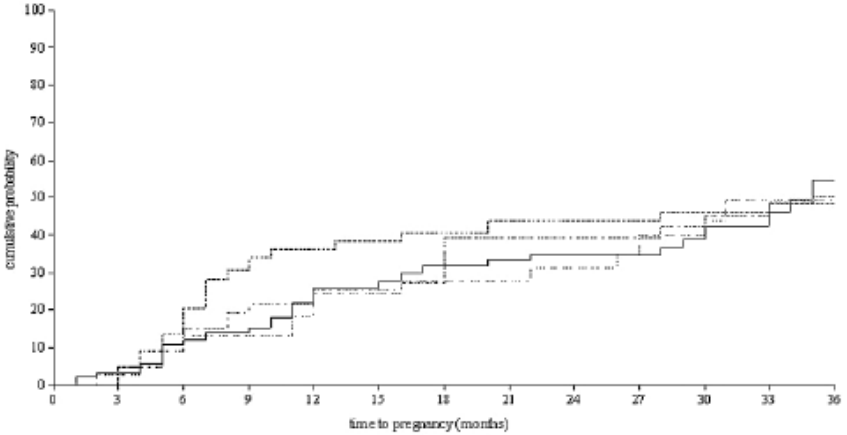


Figure 1. Cumulative 36-month probability of becoming pregnant by disease stage in 222 infertile women who underwent conservative surgery for endometriosis and had no other infertility factor (———, stage I; ·····, stage II; – – –, stage III; – · – · –, stage IV).

N=222

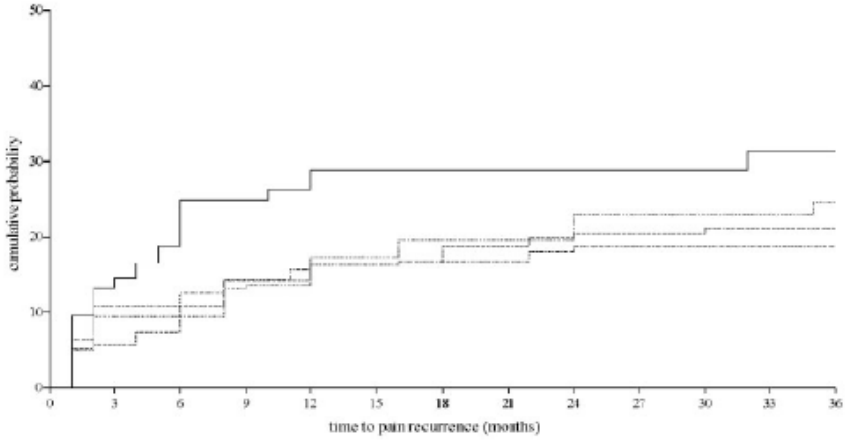


Figure 2. Cumulative 36-month probability of recurrence of moderate or severe dysmenorrhoea by disease stage in 425 symptomatic women who underwent conservative surgery for endometriosis (———, stage I; ·····, stage II; – – –, stage III; – · – · –, stage IV).

N=425

- Vercellini et al. Hum Reprod 2006

ENDOMETRİOZİSLE İLİŞKİLİ KRONİK PELVİK AĞRI: NEDENİ ?

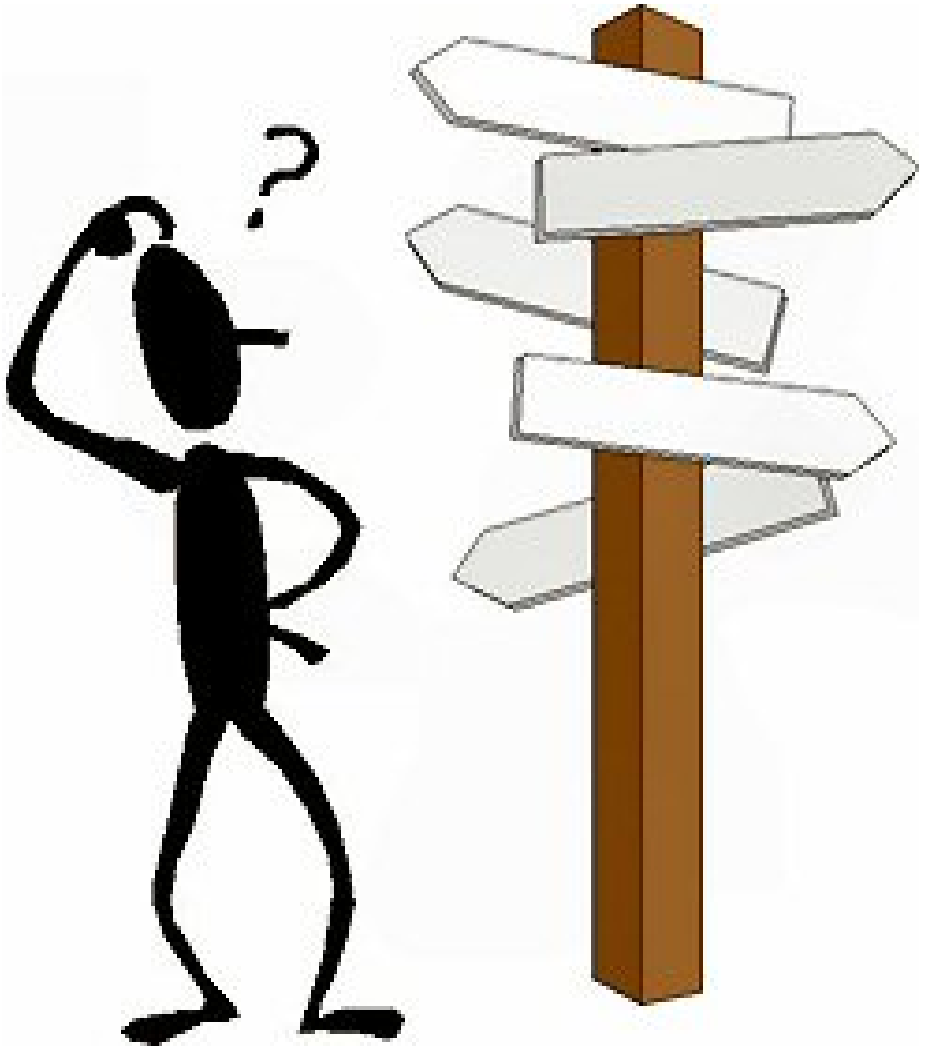
- ??

- İmplantasyonları çevreleyen dokuda gerilme
- İnfiltratif lezyonların sinir uçlarını stimülasyonu
- Enflamatuar reaksiyonlar
  - Endometriozis nedenli
  - Direkt salınan mediatörler
- Adezyonlar

Valle RF. Int J Obstet Gynecol 2002

KRONİK PELVİK AĞRI: Tanı

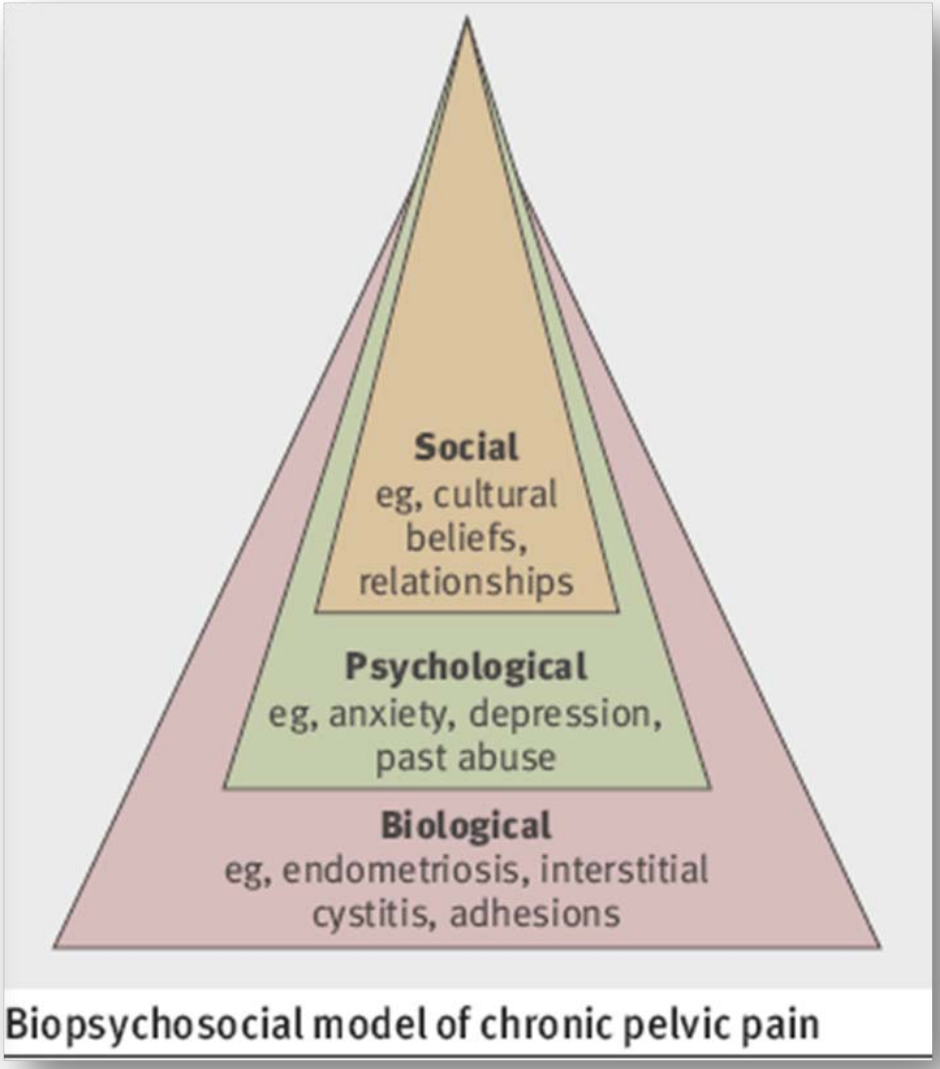
- ≥6 ay süren her türlü pelvik ağrı
- **Bir tanı değil, bir semptom**
- Endometriozis?



ENDOMETRİOZİSLE İLİŞKİLİ KRONİK PELVİK AĞRI: TANISI ?

Table I. Benign causes of chronic pelvic pain.

- Gynecologic Conditions
  - Endometriosis
  - Chronic pelvic infection
  - Pelvic varicosities
  - Ovarian remnant/retention
- Urologic Conditions
  - Interstitial cystitis/painful bladder
  - Detrusor dyssynergia
  - Urethral syndrome
- Gastrointestinal Conditions
  - Irritable bowel syndrome
  - Inflammatory bowel diseases
  - Diverticular disease
  - Celiac disease
  - Post-surgical dense adhesions
- Musculoskeletal Disorders
  - Abdominal wall myofascial pain (trigger points)
  - Fibromyalgia
  - Pelvic floor myalgia (levator any or piriformis syndrome)
  - Neuralgia of iliohypogastric, ilioinguinal, or genitofemoral nerve
  - Coccigeal or lumbosacral back pain
  - Peripartum pelvic pain syndrome
- Other
  - Depression
  - Visceral hyperalgesia
  - Somatisation disorders
  - Psychosexual dysfunction (including previous or current sexual abuse)
  - Porphyria



Biopsychosocial model of chronic pelvic pain

Endometriozis kesin tanısına ulaştıracak semptom yok

Klasik prezentasyon

- **Dismenore**
- **Disparoni**
- **Kronik pelvik ağrı** (cyclical & non-cyclical)

- Subfertilite

Daha az sıklıkla

- Anormal uterin kanama
- Üriner şikayetler
- Barsak şikayetleri (ağrılı defekasyon)
- Pelvik kitle

Table I Spectrum of pains and endometriosis lesions.

Spectrum of pains	Dysmenorrhea Dyspareunia Non-menstrual CPP Dyschesia Dysuria Musculoskeletal pain	
Spectrum of lesions	**Types**	Superficial peritoneal Endometriomas Deeply infiltrating lesions
	Visual appearance (superficial peritoneal lesions)	Clear Red Brown Yellow Black–blue White Mixed color—any lesion with two or more color types

ENDOMETRİOZİS: TANI

Non invaziv

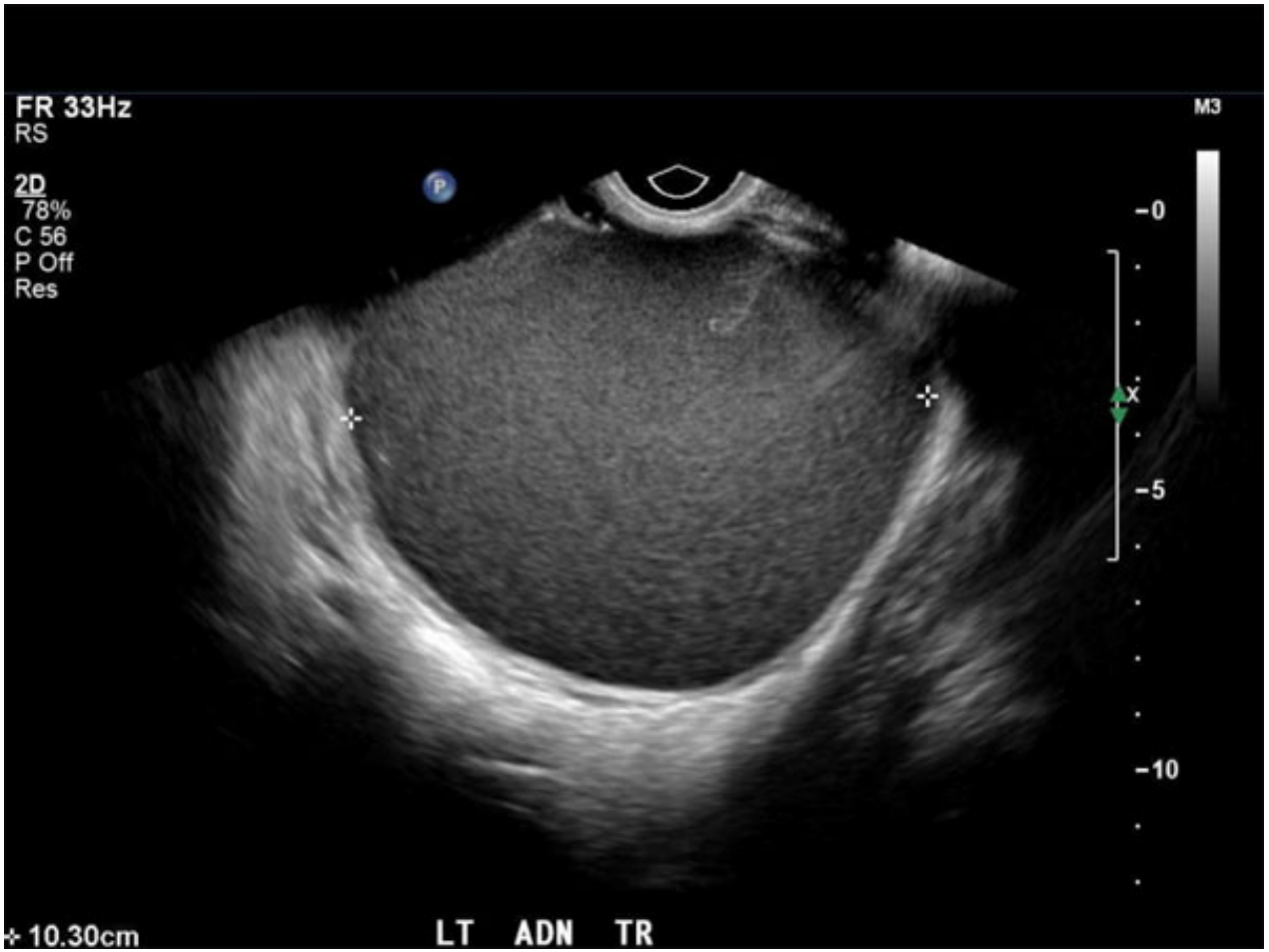
- **Ultrasonografi**
  - **Adnexal kitle**
- MRI
  - Adnexal kitle
  - Adenomyozis
  - Uterosakralleri or cul de sac'ı infiltre eden endometriozis
- CA-125
  - Nonspesifik. Benign ve malignant hastalıklarda artmakta

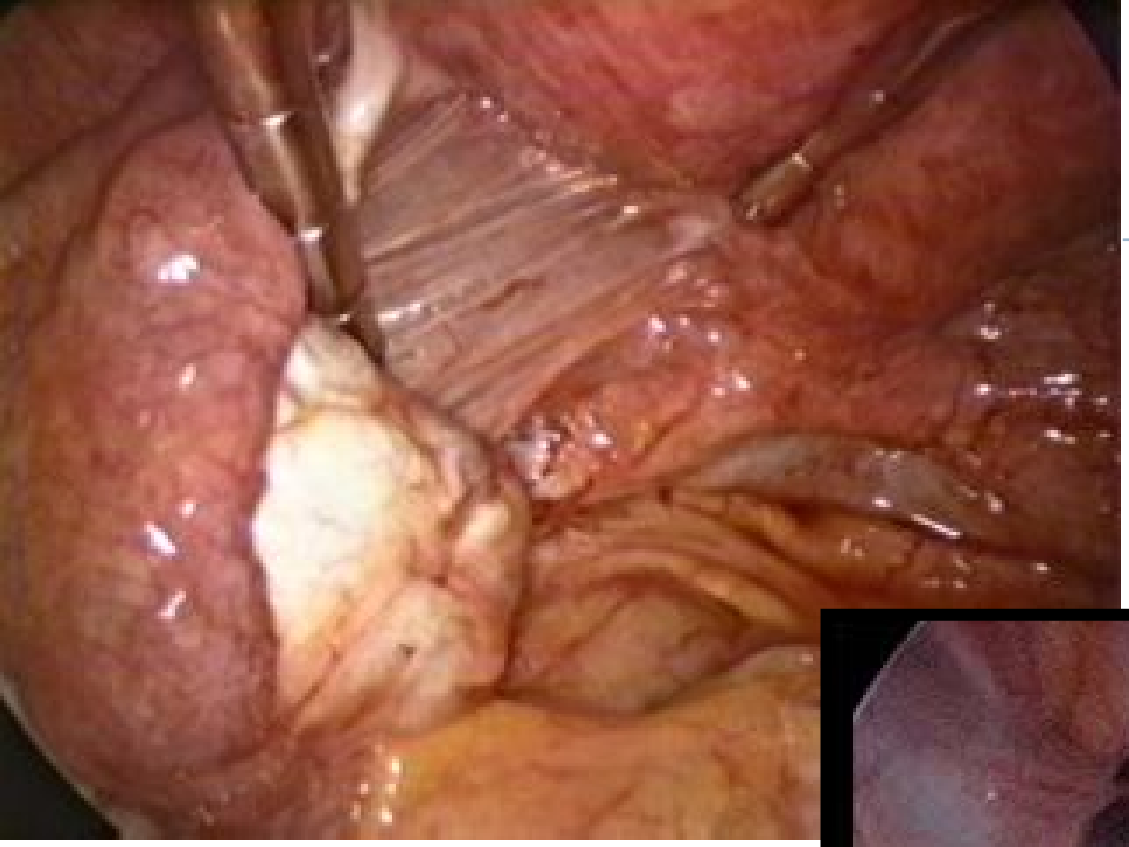
Minimal invaziv

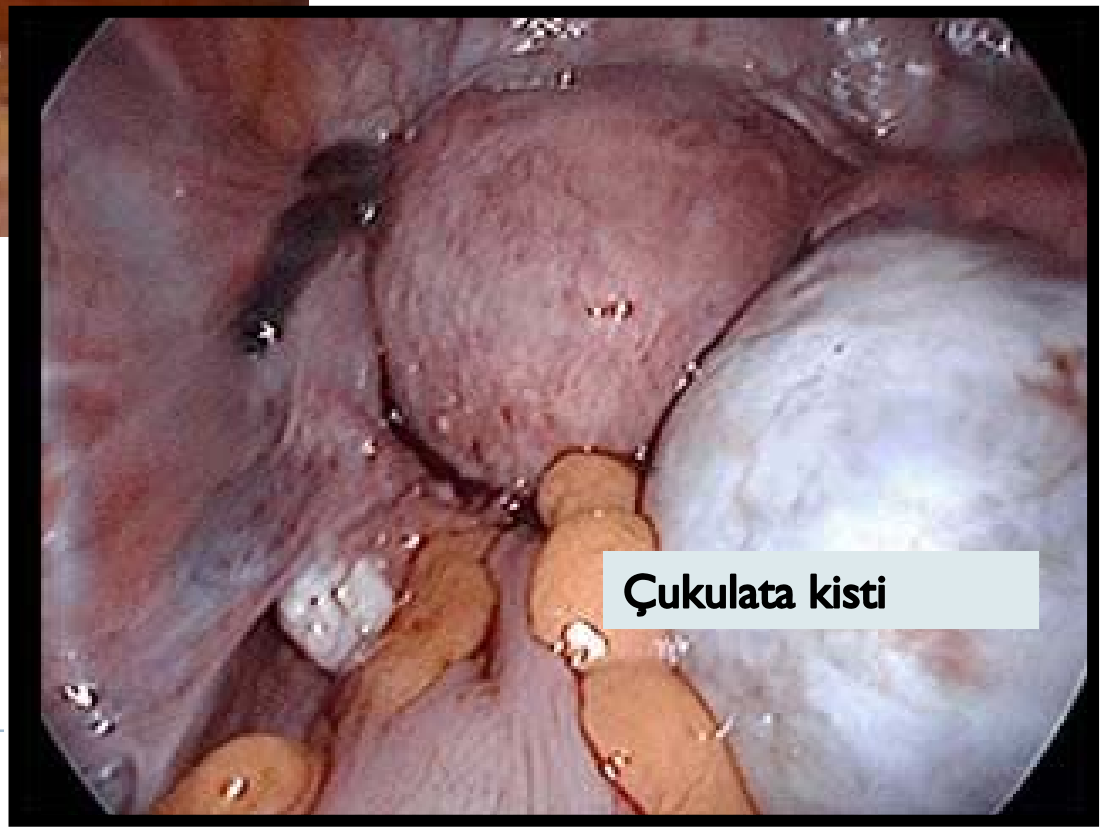
- **L/S cerrahi eksplorasyon sonrasında histolojik konfirmasyon**

ENDOMETRİOZİS: TANI

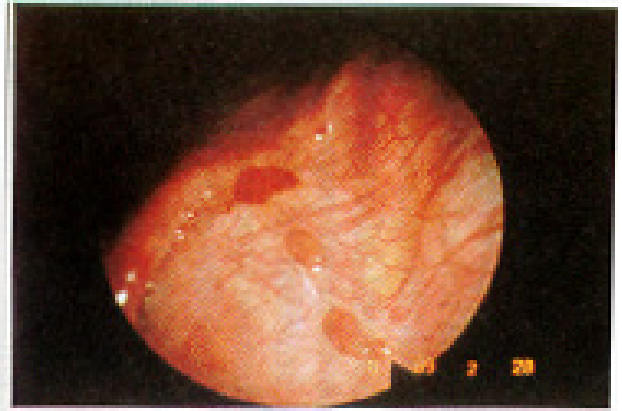
- **USG**



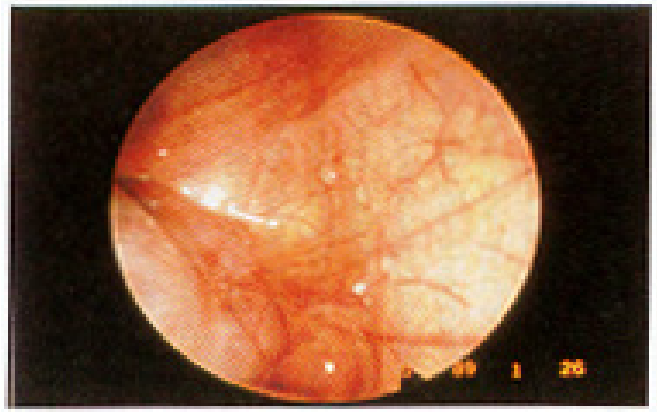



Çukulata kisti

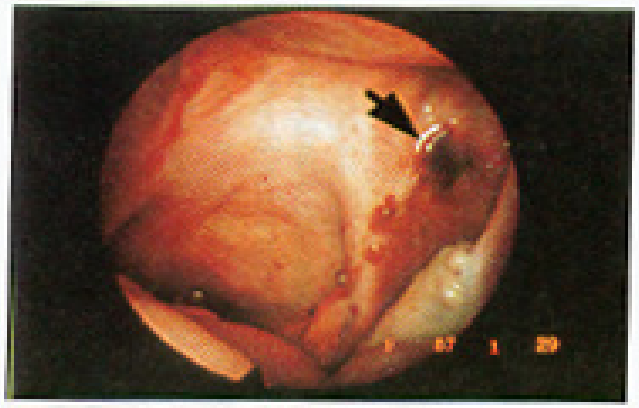
ENDOMETRİOZİSDE GÖRSEL TANI



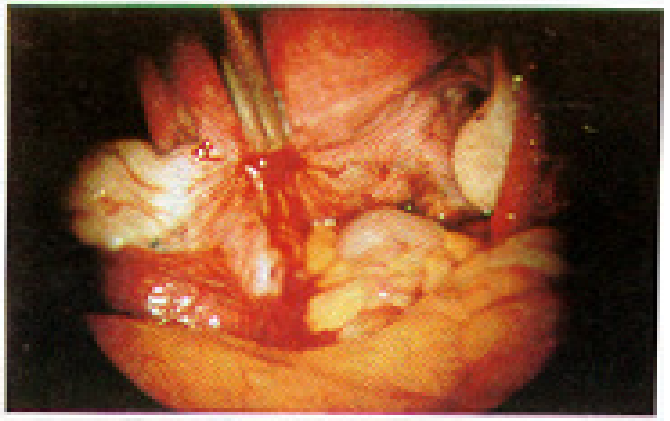
Red-pink



Clear

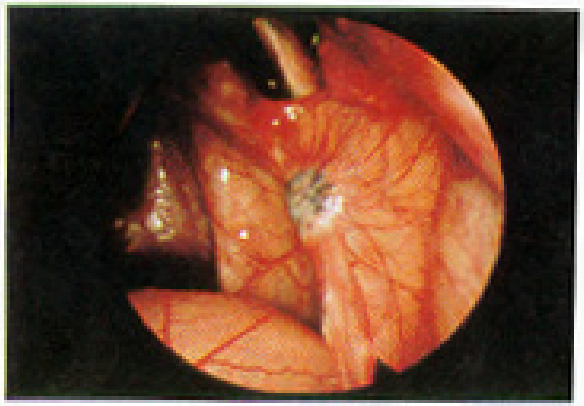


Blue

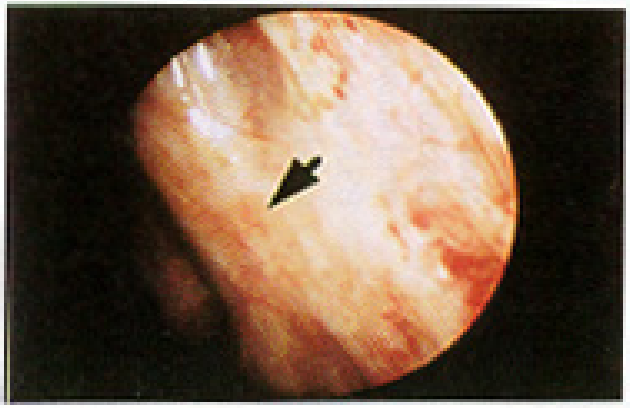


Red

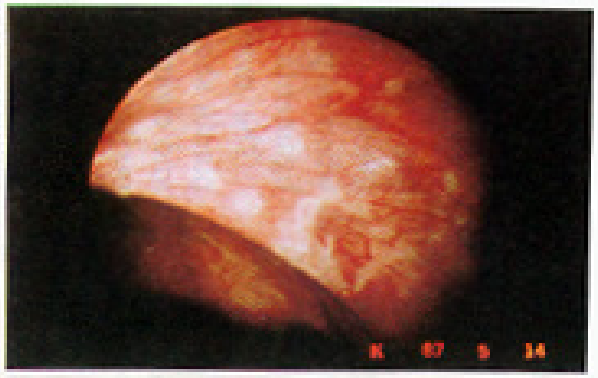
ENDOMETRİOZİSDE GÖRSEL TANI



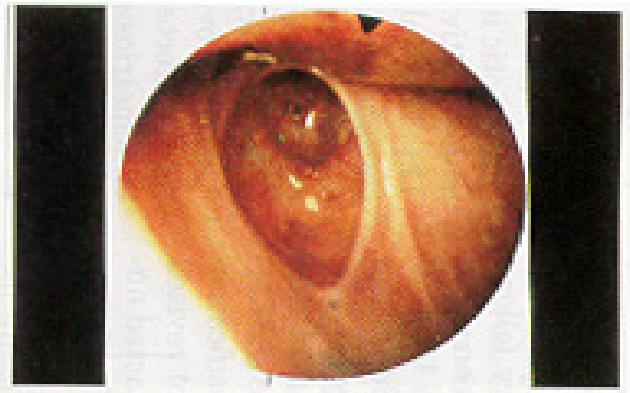
Black



Yellow-Brown



White



Peritoneal defect

ENDOMETRİOZİSDE GÖRSEL TANI

- Semptomatik olmayan kadınların %45'inde lezyon görülebilir **(1/2)**
- Kronik pelvik ağrısı olanların%35'inde görünür bir lezyon yok **(1/3)**
- Pelvik ağrısı olan ve peritonu normal görünen kadınların periton biyopsilerinde %25 endometriozis görülüyor **(1/4)**

- Görsel değerlendirmenin pozitif prediktif değeri %45-50
- **Sadece görsel tanıya güvenirsek olguların yaklaşık yarısında yanılırız**

Watter AJ. Am J Obstet Gynecol 2001

KRONİK PELVİK AĞRI: Tanı

- **Olguların %70'inde sebep endometriozis**
- Öykü, FM ve USG çoğunlukla endometriozis tanısına ulaşmada **yeterli**
- Ne zaman diğer pelvik ağrı nedenlerini detaylı araştırmalı?
  - **Konvansiyonel tedaviye cevap alınmamış ise**

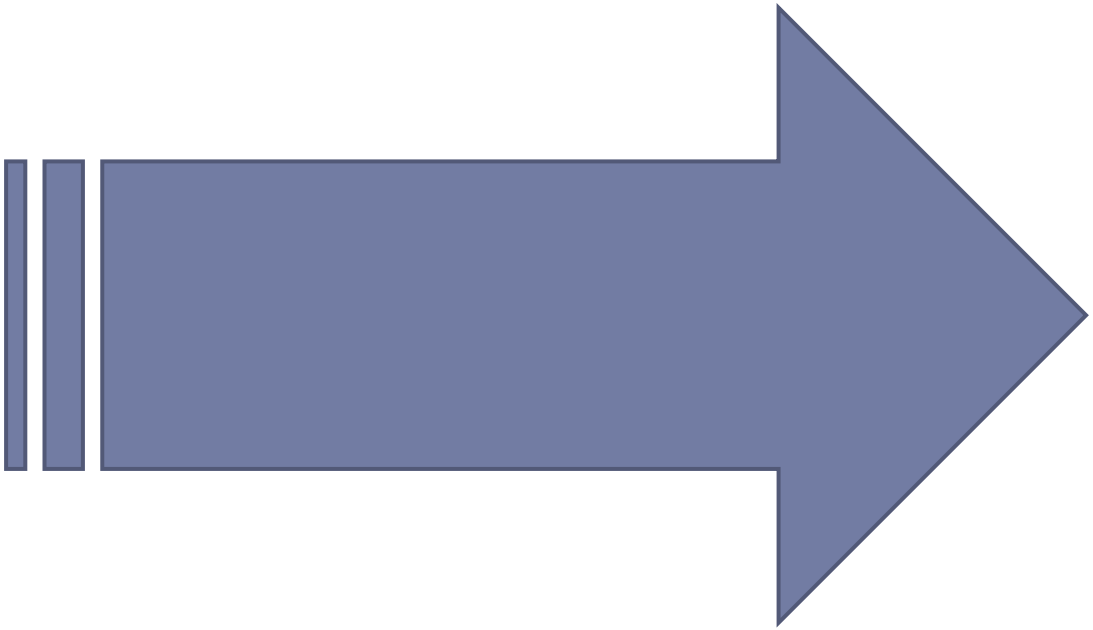
Table I. Benign causes of chronic pelvic pain.

Gynecologic Conditions
Endometriosis
Chronic pelvic infection
Pelvic varicosities
Ovarian remnant/retention
Urologic Conditions
Interstitial cystitis/painful bladder
Detrusor dyssynergia
Urethral syndrome
Gastrointestinal Conditions
Irritable bowel syndrome
Inflammatory bowel diseases
Diverticular disease
Celiac disease
Post-surgical dense adhesions
Musculoskeletal Disorders
Abdominal wall myofascial pain (trigger points)
Fibromyalgia
Pelvic floor myalgia (levator any or piriformis syndrome)
Neuralgia of iliohypogastric, ilioinguinal, or genitofemoral nerve
Coccigeal or lumbosacral back pain
Peripartum pelvic pain syndrome
Other
Depression
Visceral hyperalgesia
Somatisation disorders
Psychosexual dysfunction (including previous or current sexual abuse)
Porphyria

Practice Committee of ASRM. Fertil Steril 2008

ENDOMETRİOZİSLE İLİŞKİLİ KRONİK PELVİK AĞRI: TANISI ?

- Tüm olgulara tanısal laparoskopi yapalım mı?

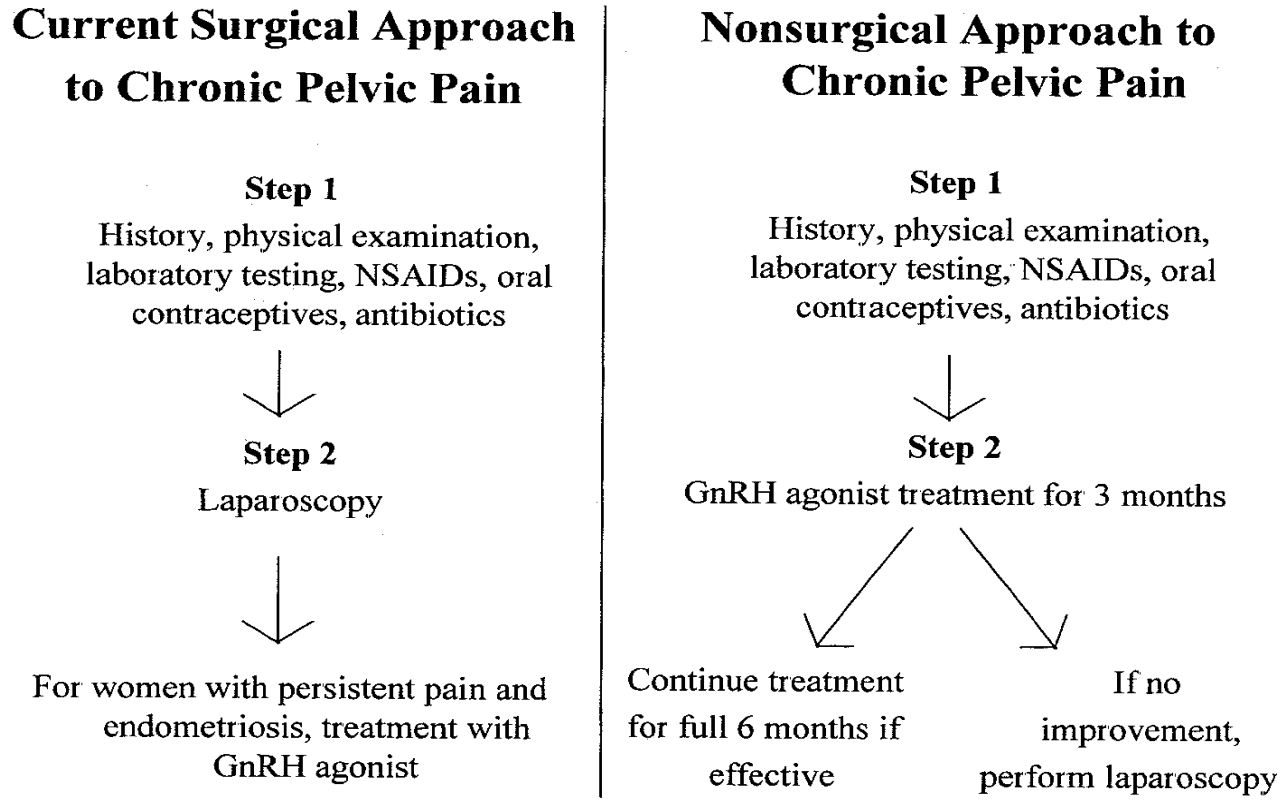


Am J Man Care 1997;3:285-290

Primary Gonadotropin-Releasing Hormone Agonist Therapy for Suspected Endometriosis: A Nonsurgical Approach to the Diagnosis and Treatment of Chronic Pelvic Pain

Robert L. Barbieri, MD

Figure 2. Comparative Treatment Algorithms for Managing Chronic Pelvic Pain Using Surgical and Nonsurgical Approaches



Randomized Controlled Trial of Depot Leuprolide in Patients With Chronic Pelvic Pain and Clinically Suspected Endometriosis

Obstet Gynecol 1999

FRANK W. LING, MD, FOR THE PELVIC PAIN STUDY GROUP

Table 1. Mean Physician-Evaluated Pain Scores at Baseline and Week 12

	n (wk 12)	Score at baseline	Score at wk 12	Depot leuprolide vs placebo mean difference at wk 12*
Dysmenorrhea				
Depot leuprolide	44	3.1	1.0	−1.7
Placebo	44	3.2	2.7	
Pelvic pain				
Depot leuprolide	44	3.2	1.9	−1.0
Placebo	44	3.1	2.9	
Pelvic tenderness				
Depot leuprolide	44	2.7	1.5	−0.8
Placebo	44	2.6	2.3	
Deep dyspareunia				
Depot leuprolide	30	2.9	1.6	−1.1
Placebo	33	2.8	2.7	
Pelvic induration				
Depot leuprolide	44	2.0	1.4	−0.7
Placebo	44	2.2	2.1	

Pain scores: 1 = none, 2 = mild, 3 = moderate, 4 = severe.
*$P \leq .001$.

Table 3. Pelvic Pain Relief in Patients With and Without Laparoscopic Evidence of Endometriosis

	After 3 mo of treatment	Laparoscopic findings	*n*
Placebo ($n = 44$)	Pain relief	Endometriosis	15 (34%)
		No endometriosis	1 (2%)
	No pain relief	Endometriosis	23 (52%)
		No endometriosis	5 (11%)
Leuprolide depot ($n = 44$)	Pain relief	Endometriosis	27 (61%)
		No endometriosis	8 (18%)
	No pain relief	Endometriosis	6 (14%)
		No endometriosis	3 (7%)

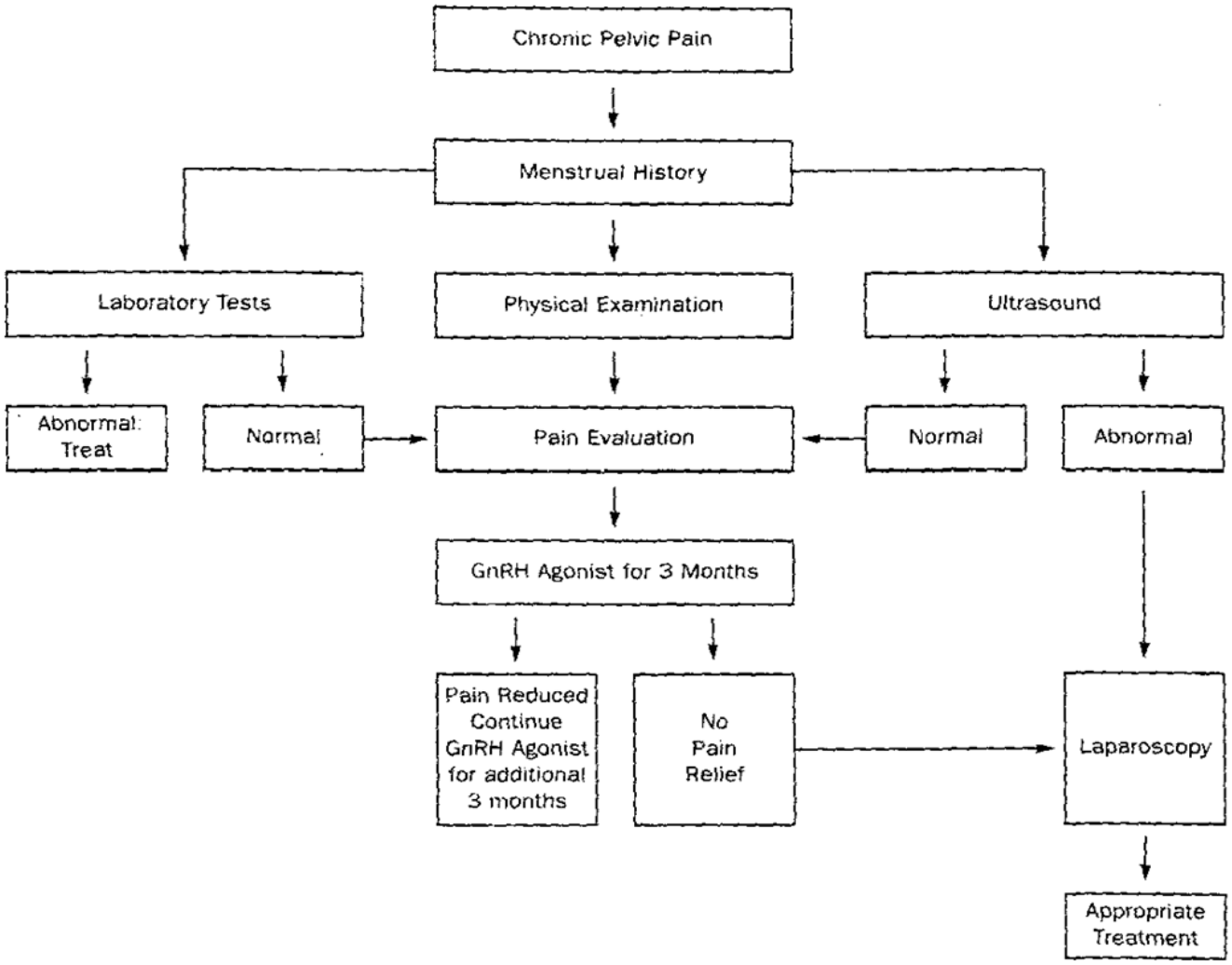
Thirty-three (75%) of 44 patients in the depot leuprolide group and 38 (86%) of 44 patients in the placebo group had laparoscopic confirmation of endometriosis and pain evaluation after 3 months of treatment. Of the patients with endometriosis, 27 (82%) of 33 experienced pain relief after 3 months of treatment with depot leuprolide, compared with 15 (39%) of 38 after 3 months of treatment with placebo. Of those with no evidence of endometriosis after 3 months of treatment, eight (73%) of 11 experienced pain relief after 3 months of treatment with depot leuprolide, compared with one (17%) of six after treatment with placebo.

ENDOMETRİOZİSLE İLİŞKİLİ KRONİK PELVİK AĞRI: TANISI ?

- Tüm olgulara tanısal laparoskopi yapalım mı?

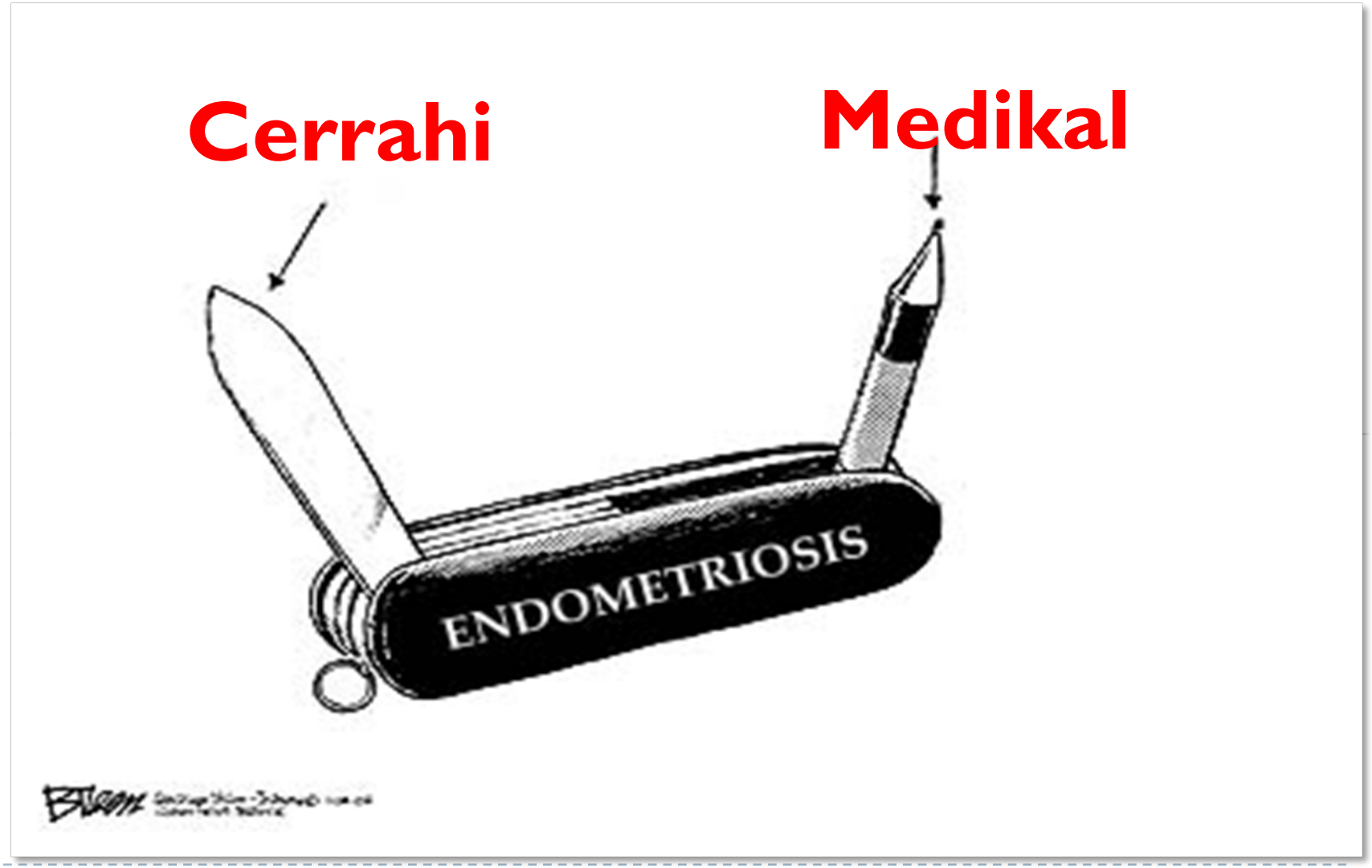
- HAYIR:
- GnRH agonistleri LS yapılmadan endometriozis tanı ve tedavisinde önerilmekte

Figure 2. Proposed diagnostic and treatment algorithm for patients with chronic pelvic pain.



Ling FW. Obstet Gynecol 1999

Endometriosis-ilişkili Ağrıda Tedavi Seçenekleri



Endometriosis-ilişkili Ağrıda Tedavi Seçenekleri

- **Gözönünde bulundurulması gereken noktalar:**
  - Semptomların tipi
  - Semptomların şiddeti
  - Hastanın yaşı
  - Fertilite isteği
  - Tedavi süresi ve uyumu
  - İlaç yanetkisine gösterilecek tolerans
  - Maliyet

Endometriosis-ilişkili Ağrıda Tedavi Seçenekleri

- **Endometriozis nedenli ağrının değerlendirilmesi, ölçülmesi ve tedaviye cevabın değerlendirilmesinde zorluklar var:**
- Ağrının ölçülmesindeki metodolojik zorluklar
- Ağrının oluşum mekanizmasının tam anlaşılamaması
- Medikal ve cerrahi tedavilerin birbirleri ve plasebo ile karşılaştırmalı çalışmaların olmaması
- Üreme organlarına ek olarak çevre organların kronik ağrı sürecine katkıları

Endometriosis-ilişkili Ağrıda Medikal Tedavi Seçenekleri

- Oral kontraseptifler ±NSAIDs
- Progestinler (oral, depo ve IUD)
- Danazol
- GnRH agonistleri (+ add-back)

ENDOMETRİOZİSLE İLİŞKİLİ PELVİK AĞRI NE ZAMAN CERRAHİ TEDAVİ?

Ağrı sebebinin endometriozis olduğu düşünülen
Laparoskopik tanının gerekmediği
Fertilite arzusu olmayan hastalarda

Medikal tedavi tercih edilmeli

NSAI ± OK

GnRH-a, danazol, progestin...

Cerrahi tedavi

Medikal tedaviden fayda görmeyen
Tanının kesinleşmesi gereken
Semptomatik ileri evre

ENDOMETRİOZİSLE İLİŞKİLİ PELVİK AĞRI CERRAHİ TEDAVİ?

- **Endometriozisin tedavisi**
  - Konservatif
    - Peritoneal odakların tedavisi
    - Endometrioma cerrahisi
  - Definitif
    - Histerektomi ±BSO
- **Pelvik denervasyon**
- LUNA
- Pre-sakral nörektomi

ENDOMETRİOZİS CERRAHİ TEDAVİ

Author study design	N	F/u time	F/u N	Results
Wheeler & Malinak (26) case series	423	3 yrs. 5 yrs.	161 77	13.5% re-operation for pain 40.3% re-operation for pain
Davis (32) case series	158	15 mos.	158	5–7% recurrence of dysmenorrhea and dyspareunia
Sutton & Hill (29) case series	228	1–6 yrs.	181	30% recurrence of pain
Redwine (27) case series	359	2.03 yrs.	336	19.5% re-operation for pain over 5 yrs, by life-table analysis
Sutton et al. (31) randomized, double blind controlled	63	6 mos.	63	38.7% recurrence of pain in treated group vs 77.4% in controls
Donnez et al. (30) case series	500	6 mos, 2 yrs.	242	No recurrences at 6 mos. At 2 yrs, 1.2% recurrence of dysmenorrhea, 3.7% recurrence of dyspareunia (excision of infiltrated cul-de-sac disease)
Chapron et al. (28) case series	110	17 mos.	110	12% recurrence of pain

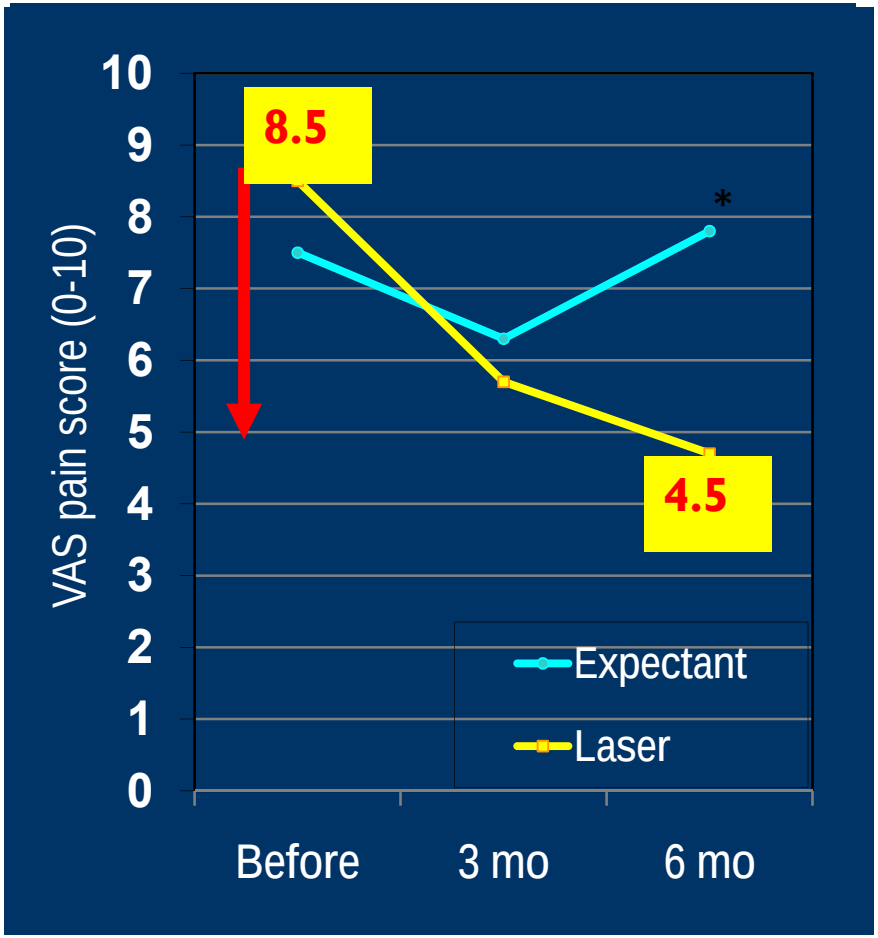
Note: F/u = follow-up; N = number.

ASRM Practice Committee. Treatment of pelvic pain and endometriosis. Fertil Steril 2008.

- **Cerrahi tedavi sonrasında 1 yıllık takipte ağrıda rahatlama %50-95**

Endometriozis ilişkili pelvik ağrıda laparoskopik cerrahi (RCT)

- Sutton et al. 1994
- Study design
  - RCT, double blinded
  - N=63 ♀ stage I-III endometriosis
  - [Laparoscopic laser ablation + LUNA] vs. expectant management
- Results
  - No difference at 3 months (56% vs 48% of expectant group with improved pain)
  - Significant improvement with laser ablation at 6 months (63% vs. 23%, p<0.01)



* p=0.01, laser vs. expectant

Sutton et al. Fertil Steril 1994; 62(4):696-700.

Laparoscopic excision of endometriosis: a randomized, placebo-controlled trial

FERTILITY AND STERILITY®
VOL. 82, NO. 4, OCTOBER 2004

Jason Abbott, Ph.D.,[a] Jed Hawe, M.R.C.O.G.,[b] David Hunter, M.R.C.O.G.,[c] Michael Holmes, Ph.D.,[d] Paul Finn, M.Sc.,[e] and Ray Garry, M.D.[f]

Change in overall level of pain reported after surgery.

	DSG	ISG	DSG vs. ISG
Surgery 1	n = 19	n = 20	
Any improvement in pain, n (%)	6 (32)	16 (80)	
No change/worse pain, n (%)	13 (68)	4 (20)	$\chi^2 = 9.3$, $P=.002$
VAS[a] change in pain, score (range)	0 (0–100)	30 (0–95)	$Z = -2.5$, $P=.012$
Surgery 2[b]	n = 18	n = 15	
Any improvement in pain, n (%)	15 (83)	8 (53)	
No change/worse pain, n (%)	3 (17)	7 (47)	$\chi^2 = 3.88$, $P=.13$
VAS change in pain, score (range)	82.5 (0–100)	50 (0–100)	$Z = -1.22$, $P=.26$

Note: Patients were asked to report on their pain relief 6 mo after surgery. For surgery 1, this was immediately before surgery 2 and for surgery 2 this was 12 mo from surgery 1.

[a] Visual analogue scale, where 0 = no change in pain and 100 = complete relief of pain.

[b] Patients were asked to report on the improvement in overall level of pain after surgery 2, not compared with baseline.

- **Post op 6 ay, cerrahi yapılan grupta 16/20 (%80) semptomatik iyileşme**
  - **Operatif cerrahiden fayda görmeyen bir grup olabilir (%20)**
- **Diagnostik cerrahinin %30 gibi plasebo etkisi var !**
- **İlk cerrahi daha fazla fayda sağlıyor**

J Obstet Gynaecol Can. 2005 May;27(5):477-85.

Laparoscopy and reported pain among patients with endometriosis.

Jarrell J, Mohindra R, Ross S, Taenzer P, Brant R.
Department of Obstetrics and Gynecology, University of Calgary, Calgary, Alberta, Canada.

Abstract

OBJECTIVE: To compare the effectiveness of sharp excision of endometriosis with sham surgical excision in alleviating endometriosis-associated pain for up to 1 year following surgery.

METHODS: Patients requiring a laparoscopy for severe pelvic pain were eligible. If endometriosis was visually identified at laparoscopy, a biopsy of a representative lesion was taken. The women were then randomized either to have all remaining endometriosis excised with laparoscopic scissors (the excision group) or to have no further surgical treatment (the control group). Patients were asked to complete daily pain scales for 1 month preoperatively and quarterly for 1 year postoperatively. Subjects were blinded to their treatment allocation for 1 year.

RESULTS: Twenty-nine women underwent laparoscopy and biopsy and were randomized to have excision or no treatment of endometriosis. The excision and control groups were similar in age, parity, and revised American Society for Reproductive Medicine stage of disease. Sixteen women completed the full year of follow-up: 9 in the excision group, and 7 in the control group. Overall, recorded pain was significantly reduced at 1 year ($P < 0.05$), with no significant difference between the excision and control groups.

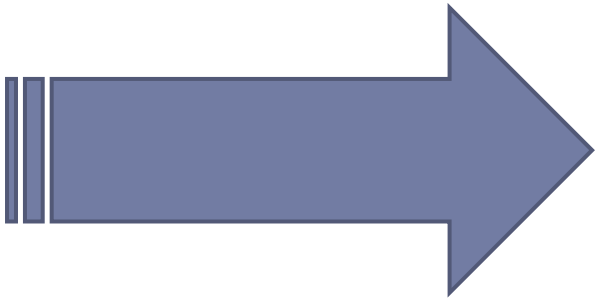
CONCLUSION: Laparoscopy with diagnostic biopsy alone is associated with a significant reduction in pain for up to 1 year postoperatively. Although the study lacked sufficient statistical power to exclude an effect of excision, pain relief in each group was similar. These results indicate a potential benefit of sham surgical procedures in assessing novel surgical interventions.

- 29 women with severely symptomatic minimal to moderate endometriosis to laparoscopic excision (n =15) or observational laparoscopy (n=14).
- The subjects completed pain diaries at baseline and then at 3 month intervals for 1 year.
- Only seven women in the excisional surgery group and eight in the control group completed the entire follow-up period.
- No significant difference was observed in visual analogue scale pain score reduction (45% versus 33%, respectively).

ENDOMETRİOZİSLE İLİŞKİLİ PELVİK AĞRI CERRAHİ TEDAVİ?

- Bu sonuçlar göstermektedir ki endometriotik lezyonların laparoskopik cerrahi tedavisi ağrıda düzelme sağlıyor. Bu nedenle semptomatik hastalarda tanısal LS sırasında endometriotik tedavisi önerilmektedir.

- Konservatif cerrahi tedavi sonrasında kısa dönemde önemli bir düzelme var, fakat, tıbbi tedavide olduğu gibi ağrının nüksü yüksek oranda



- The Practice Committee of the American Society for Reproductive Medicine 2008

Surgical treatment of endometriosis: a 7-year follow-up on the requirement for further surgery.

Shakiba K, Bena JF, McGill KM, Minger J, Falcone T.

Department of Obstetrics and Gynecology, Cleveland Clinic, Cleveland, Ohio 44159, USA.

Erratum in:

Obstet Gynecol. 2008 Sep;112(3):710.

Abstract

OBJECTIVE: To investigate the need for further surgery after laparoscopic excision of endometriosis or hysterectomy.

METHODS: In this retrospective study, women who had surgery for endometriosis-associated pain at the Cleveland Clinic were assessed for requirement for subsequent surgery. One hundred twenty patients who underwent hysterectomy with or without oophorectomy for endometriosis and 120 patients who had laparoscopic excision of their endometriotic lesions only (local excision group) formed the study population. Estimates of reoperation-free survival at 2, 5, and 7 years were calculated using Kaplan-Meier methods, and estimates of risk (hazard ratios) were computed using Cox proportional hazards models. A significance level of .05 was assumed for all tests.

RESULTS: In women who underwent local excision with ovarian preservation, the surgery-free percentages were 79.4%, 53.3%, and 44.6%, respectively, at 2, 5, and 7 years. In women who underwent hysterectomy with ovarian preservation, the 2-, 5-, and 7-year reoperation-free percentages were 95.7%, 86.6%, and 77.0%, respectively. In women who underwent hysterectomy without ovarian preservation, the percentages were 96.0%, 91.7%, and 91.7%, respectively. However, in women between 30 and 39 years of age, removal of the ovaries did not significantly improve the surgery-free time.

CONCLUSION: Local excision of endometriosis is associated with good short-term outcomes but, on long-term follow-up, has a high reoperation rate. Hysterectomy is associated with a low reoperation rate. Preservation of the ovaries at the time of hysterectomy remains a viable option.

LEVEL OF EVIDENCE: II.

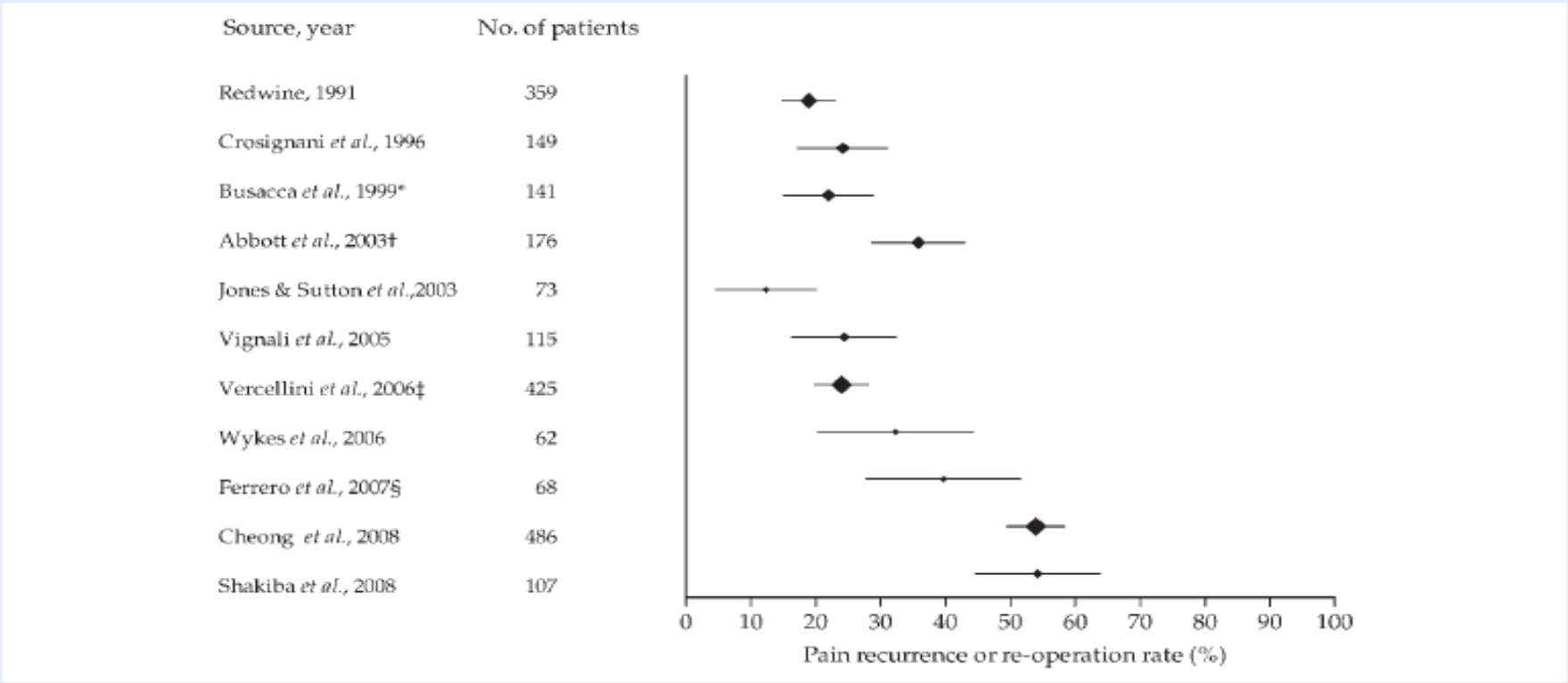


Figure 1 Pain recurrence or re-operation rates reported after first-line conservative surgery for symptomatic endometriosis. Literature data, 1991–2008, observational and retrospective studies. Diamonds represent percentage point estimates and horizontal lines 95% confidence intervals. *Cumulative dysmenorrhoea recurrence rate after surgery at laparotomy; †Cumulative re-operation rate; ‡Only subjects with moderate to severe dysmenorrhoea are considered; §Dyspareunia recurrence rate at intention-to-treat analysis.

- Endometriozisin lokal eksizyonunun kısa dönem sonuçları iyi, fakat uzun dönemde re-operasyon oranları yüksek
- Tekrar cerrahi riski 30 yaş altı grupta yüksek, gebelik elde edilenlerde düşük

---

- Vercellini 2009

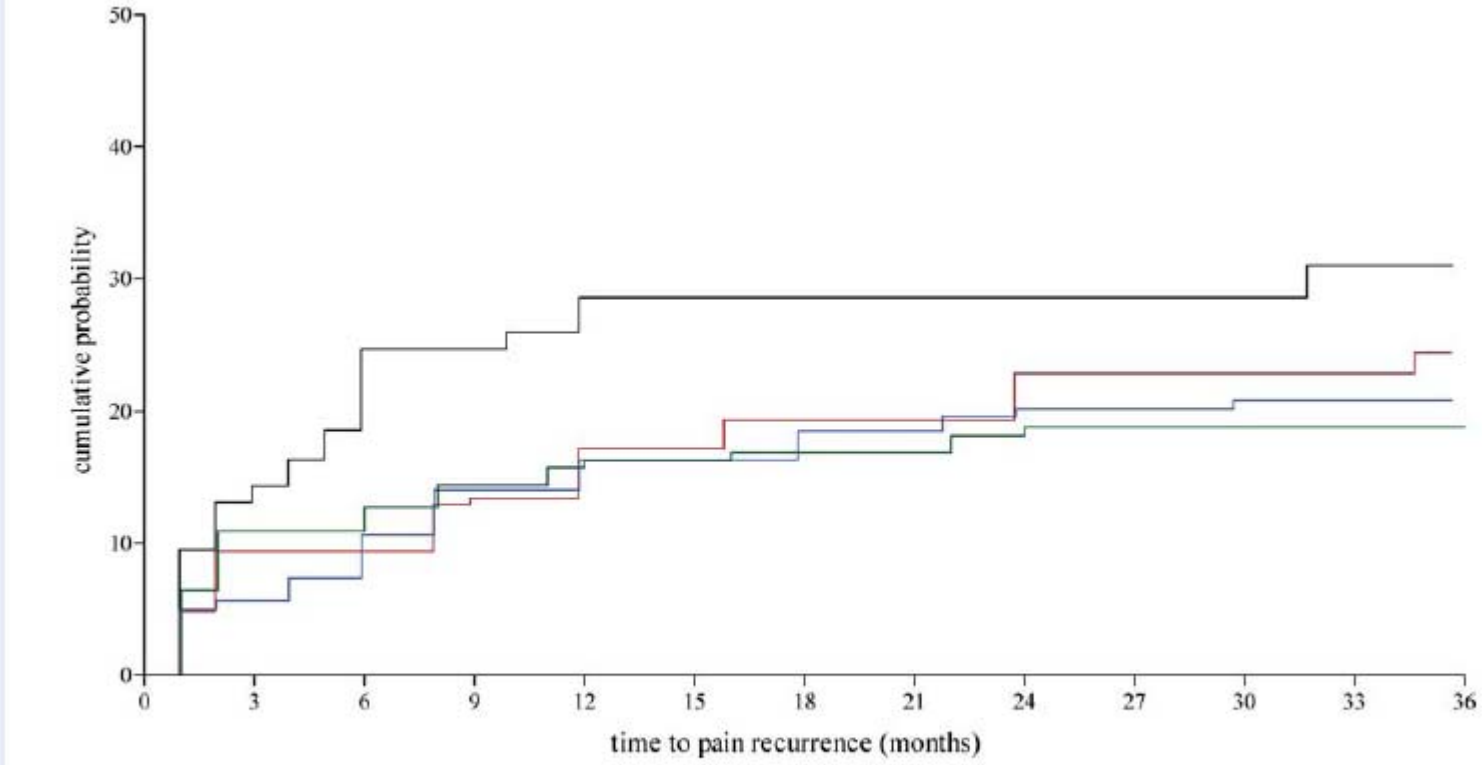
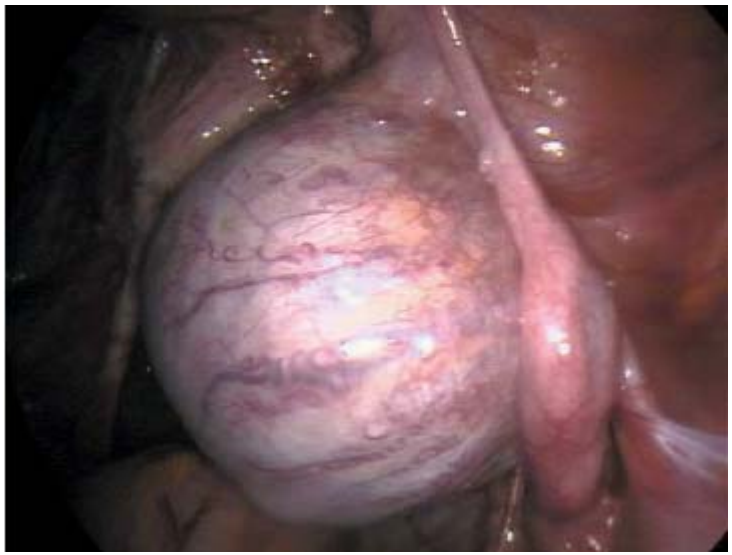


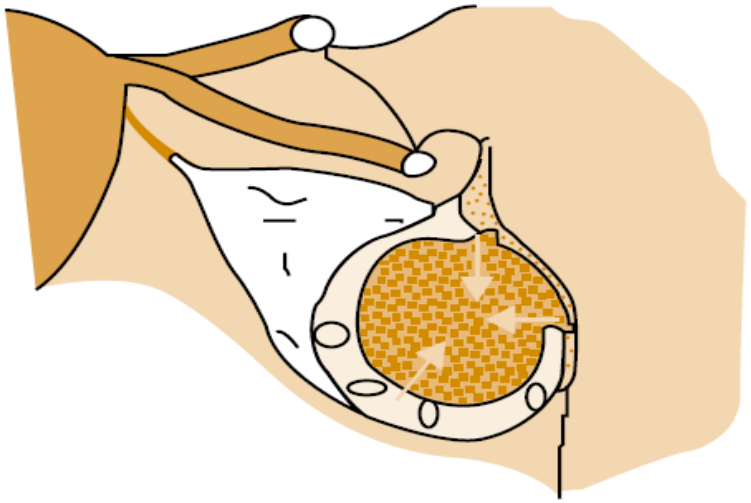
Figure 2 Cumulative 36 month probability of recurrence of moderate or severe dysmenorrhoea by disease stage in 425 symptomatic women who underwent conservative surgery for endometriosis (black line, stage I; red line, stage II; blue line, stage III; green line, stage IV). From Vercellini *et al.* (2006a), reproduced with permission of the publisher.

- Endometriosis stage was not associated with risk of recurrence of moderate or severe menstrual pain
- A total of 425 subjects had moderate or severe dysmenorrhoea before surgery. The overall cumulative probability of dysmenorrhoea recurrence at 3 years from surgery was 24% (32% at stage I, 24% at stage II, 21% at stage III, 19% at stage IV

Vercellini 2009

Endometrioma ve ağrı





- Semptomatik veya büyük(?) endometriomaların primer tedavisi cerrahi
- Kist eksizyonu, ablazyona kıyasla ağrının giderilmesi ve nüksün önlenmesinde daha etkin
- Over rezervi

Comparison: 2 Excisional surgery versus ablative surgery in the management of ovarian endometriomata by laparoscopy

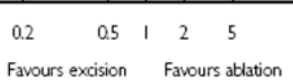
Outcome: 1 Relief from pelvic pain

Study or subgroup	Excisional surgery n/N	Alative surgery n/N	Odds Ratio M-H,Fixed,95% CI	Weight	Odds Ratio M-H,Fixed,95% CI
Alborzi 2004	52/52	48/48		0.0 %	Not estimable
Beretta 1998	32/32	32/32		0.0 %	Not estimable
Total (95% CI)	**84**	**80**		**0.0 %**	**Not estimable**

Total events: 84 (Excisional surgery), 80 (Alative surgery)

Heterogeneity: not applicable

Test for overall effect: not applicable



Comparison: 2 Excisional surgery versus ablative surgery in the management of ovarian endometriomata by laparoscopy

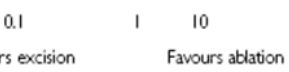
Outcome: 2 Recurrence of pelvic pain

Study or subgroup	Excisional surgery n/N	Ablative surgery n/N	Odds Ratio M-H,Fixed,95% CI	Odds Ratio M-H,Fixed,95% CI
1 Recurrence of dysmenorrhea				
Alborzi 2004	6/38	17/30		0.14 [0.05, 0.44]
Beretta 1998	3/19	9/17		0.17 [0.04, 0.79]
Subtotal (95% CI)	**57**	**47**		**0.15 [0.06, 0.38]**

Total events: 9 (Excisional surgery), 26 (Ablative surgery)

Heterogeneity: $Chi^2 = 0.02$, df = 1 (P = 0.88); $I^2 = 0.0\%$

Test for overall effect: Z = 4.04 (P = 0.000053)



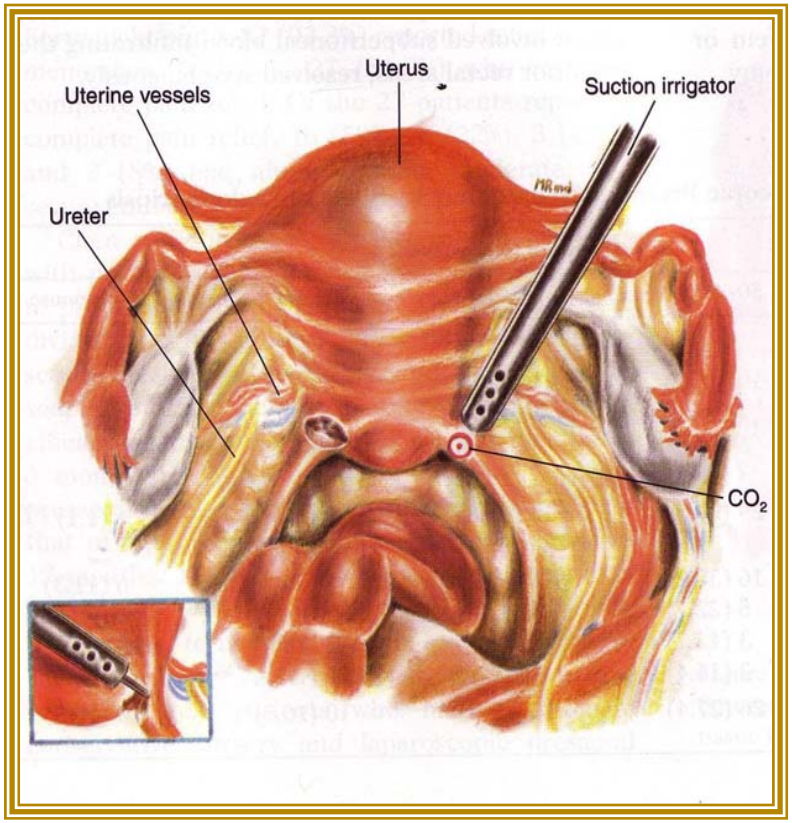
Hart RJ. *Cochrane Database of Systematic Reviews 2008*

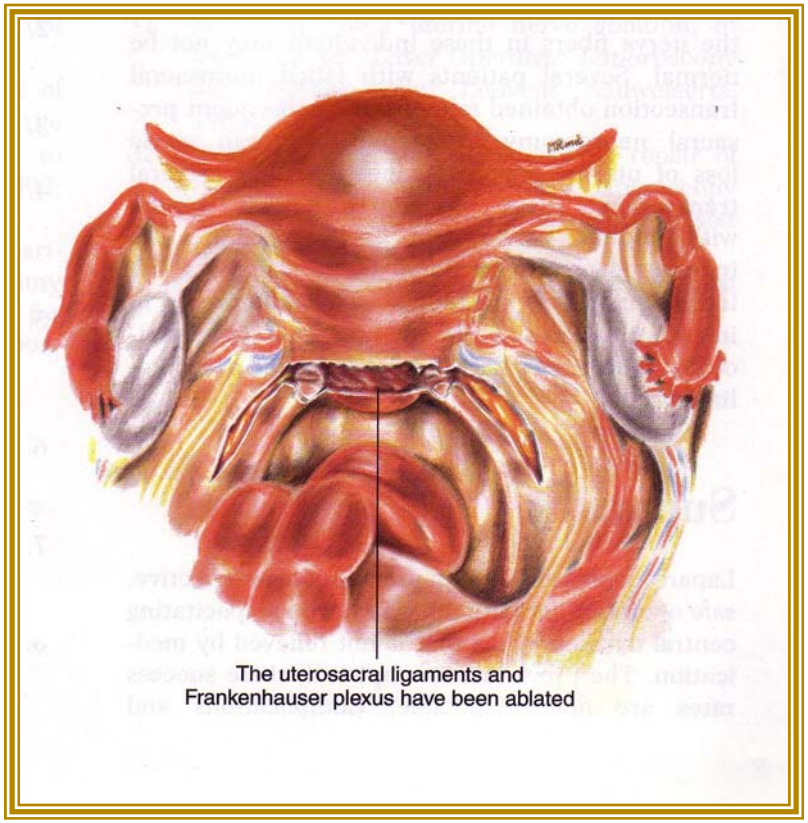
ENDOMETRİOZİSLE İLİŞKİLİ PELVİK AĞRI YARDIMCI CERRAHİ TEDAVİ?

Pelvik Denervasyon Cerrahileri:

- **Uterosakral Nörektomi (LUNA)**
- **Presakral Nörektomi**

Uterosakral Nörektomi



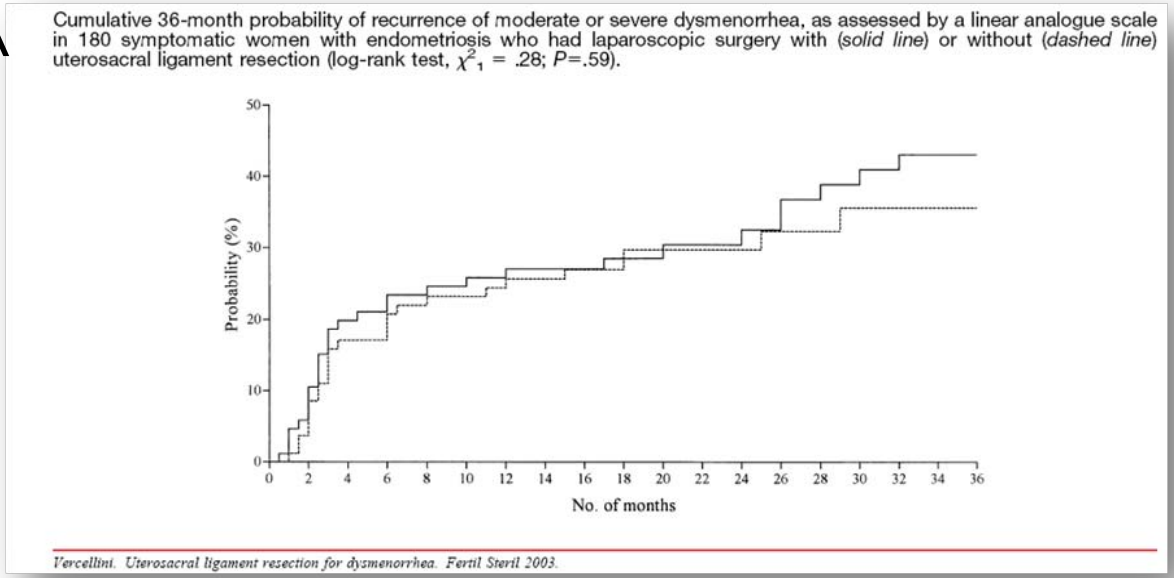


Nezhat C , et al. Operative gynecologic laparoscopy: principles and techniques. 2nd Edition. 2000

Laparoscopic uterosacral ligament resection for dysmenorrhea associated with endometriosis: results of a randomized, controlled trial

Paolo Vercellini, M.D.,[a] Giorgio Aimi, M.D.,[a] Mauro Busacca, M.D.,[b] Giovanni Apolone, M.D.,[c] Anna Uglietti, M.D.,[a] and Pier Giorgio Crosignani, M.D.[a]

- RKÇ, 180 olgu
- Konzervatif cerrahi ±LUNA
- 1 yıl sonunda dismenore rekürrens oranı
  - -LUNA %27
  - +LUNA %29
- 3 yıl sonunda dismenore rekürrens oranı
  - -LUNA %32
  - +LUNA %36
- Konservatif cerrahiye LUNA eklenmesi ek fayda sağlamıyor

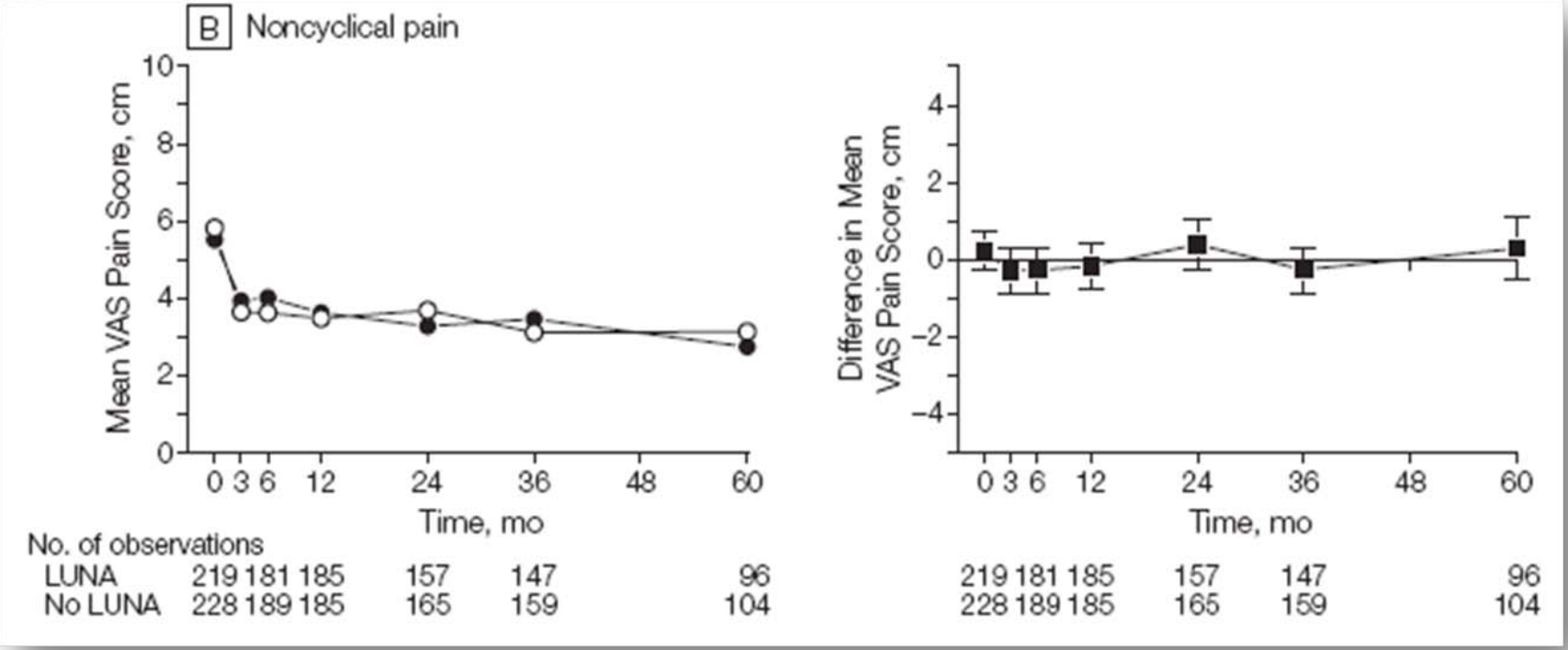


Laparoscopic Uterosacral Nerve Ablation for Alleviating Chronic Pelvic Pain

A Randomized Controlled Trial

JAMA. 2009;302(9):955-961

Figure 2. Effect of Laparoscopic Uterosacral Nerve Ablation (LUNA) at 12 Months and at Each Time Point



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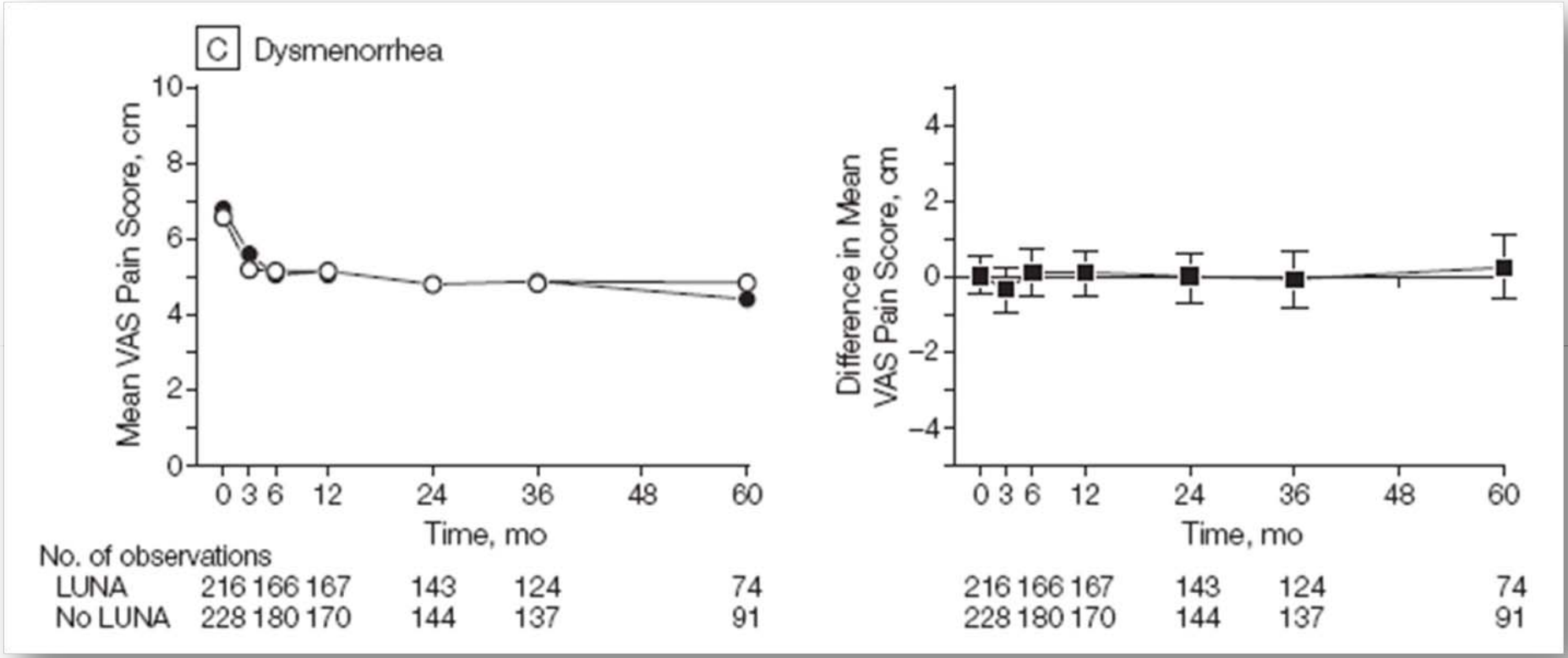

Laparoscopic Uterosacral Nerve Ablation for Alleviating Chronic Pelvic Pain

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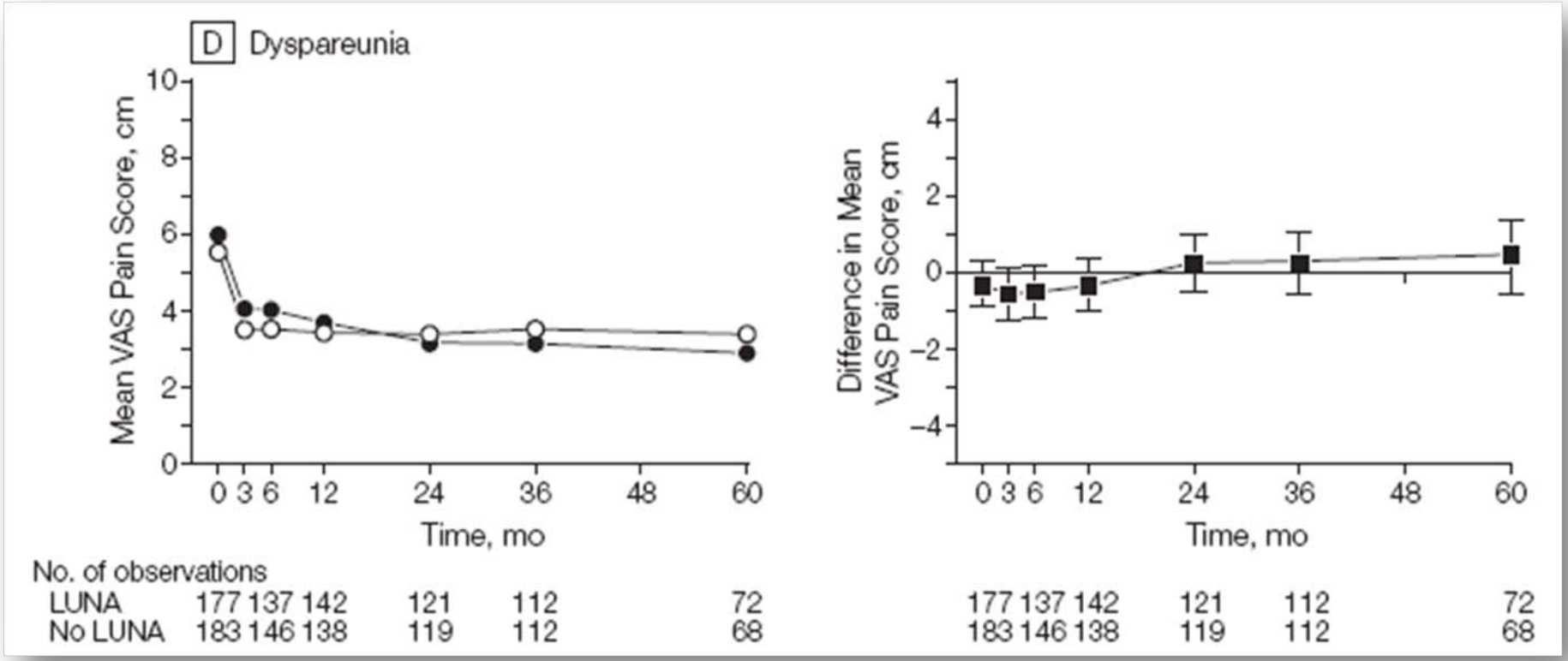
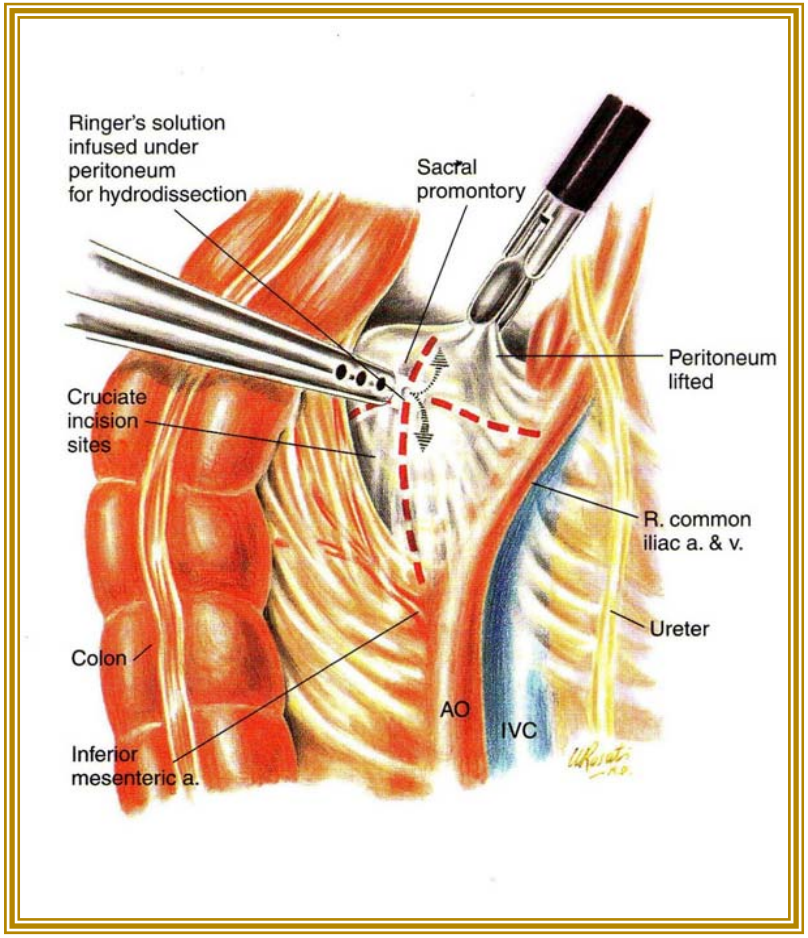


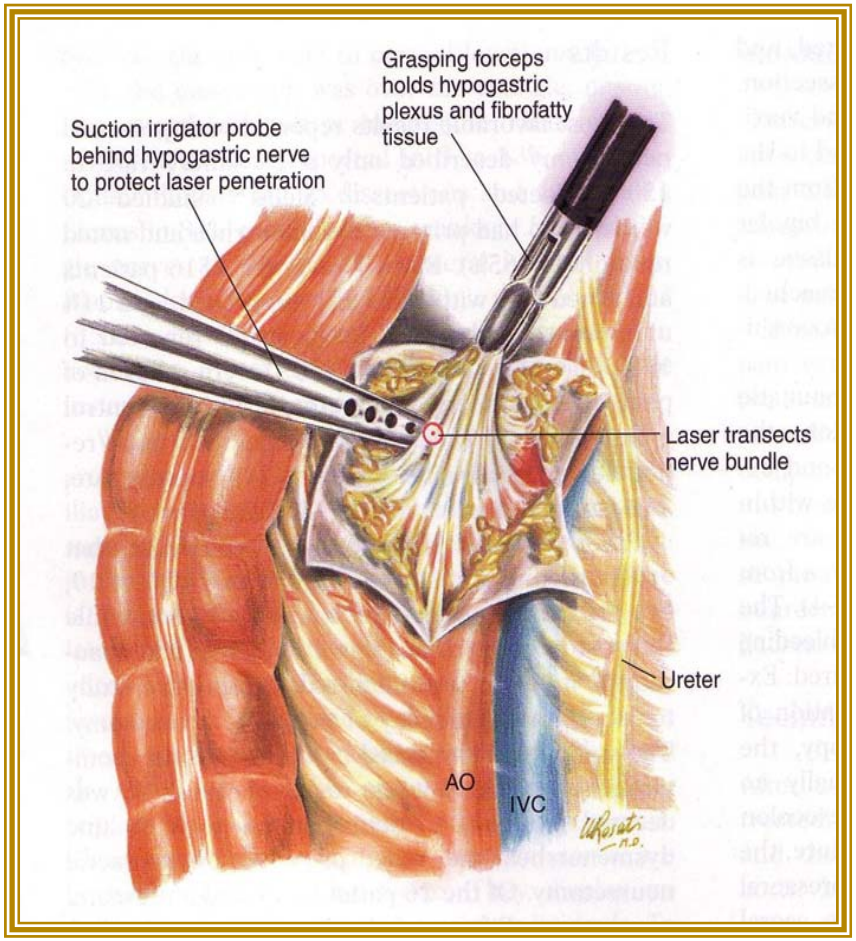
ENDOMETRİOZİSLE İLİŞKİLİ PELVİK AĞRI YARDIMCI CERRAHİ TEDAVİ?

- Kronik pelvik ağrıda, şiddetli dismenorede konservatif cerrahiye LUNA eklenmesi ağrı, dismenore, disparoni ve yaşam kalitesinin iyileştirilmesi anlamında ek bir fayda sağlamıyor

- **Günümüzde önerilmiyor**

Presakral Nörektomi





- Nezhat C , et al. Operative gynecologic laparoscopy: principles and techniques. 2000

Presakral Nörektomi

Tedavi	1 yıllık takipde dismenore rekürrensi (%)	
Konservatif cerrahi	9/36 (%25)	NS
Konservatif cerrahi + Pre-sakral nörektomi	6/35 (%17)	

13 olguda konstipasyon

3 olguda üriner şikayetler

PRKÇ

- Candiani GB. Am J Obstet Gynecol 1992

Effectiveness of presacral neurectomy in women with severe dysmenorrhea caused by endometriosis who were treated with laparoscopic conservative surgery: A 1-year prospective randomized double-blind controlled trial

(Am J Obstet Gynecol 2003

Fulvio Zullo, MD,[a] Stefano Palomba, MD,[a] Errico Zupi, MD,[b] Tiziana Russo, MD,[a]
Michele Morelli, MD,[a] Fulvio Cappiello, MD,[a] and Pasquale Mastrantonio, MD[c]
Catanzaro, Rome, and Messina, Italy

- Şiddetli dismenore olguları
- Konservatif cerrahi ±PSN
- İyileşme oranları:
  - 6 ay sonra %87.3 vs %60.3
  - 12 ay sonra %85.7 vs %57.1
- PSN etkili…

Table III. Number and percentage of women who were cured, according to endometriosis stage (based on the revised American Fertility Society classification of endometriosis[23]) and deep rectovaginal septum endometriosis

Cure rate	*Group A (n = 63)*	*B (n = 63)*
Stage I (No.)	18 (28.6%)	16 (25.4%)
6-mo follow-up visit	11 (61.1%)	14 (87.5%)*
12-mo follow-up visit	11 (61.1%)	14 (87.5%)
*Stage II (No.)	21 (33.3%)	22 (34.9%)
6-mo follow-up visit	13 (61.9%)	19 (86.4%)*
12-mo follow-up visit	12 (57.1%)	19 (86.4%)
*Stage III (No.)	17 (27.0%)	17 (27.0%)
6-mo follow-up visit	10 (58.8%)	15 (88.2%)*
12-mo follow-up visit	10 (58.8%)	15 (88.2%)
*Stage IV (No.)	7 (11.1%)	8 (12.7%)
6-mo follow-up visit	4 (57.1%)	7 (87.5%)*
12-mo follow-up visit	3 (42.9%)	6 (75.0%)*
Deep rectovaginal septum endometriosis (No.)	6 (9.5%)	7 (11.1%)
6-mo follow-up visit	2 (33.3%)†	5 (71.4%)*
12-mo follow-up visit	1 (16.7%)‡	4 (57.1%)*

*$P < .05$ versus group A.
†$P < .05$ versus stages I through III.
‡$P < .05$ versus stages I through IV.

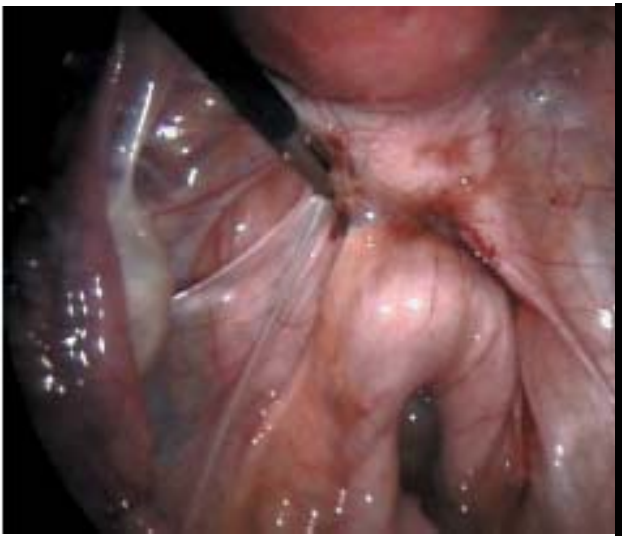
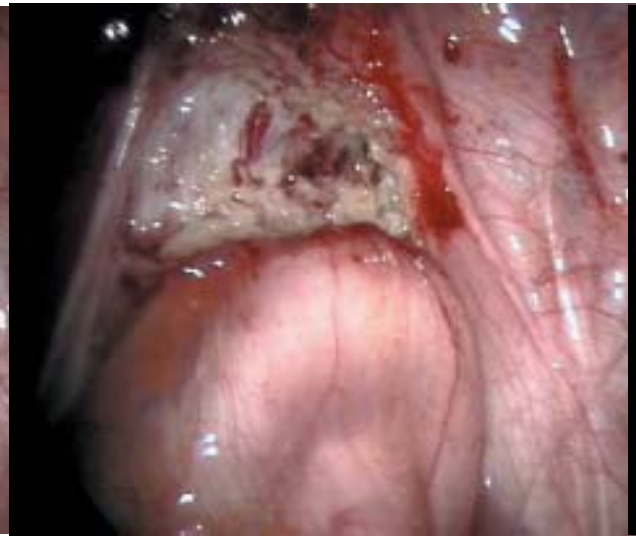
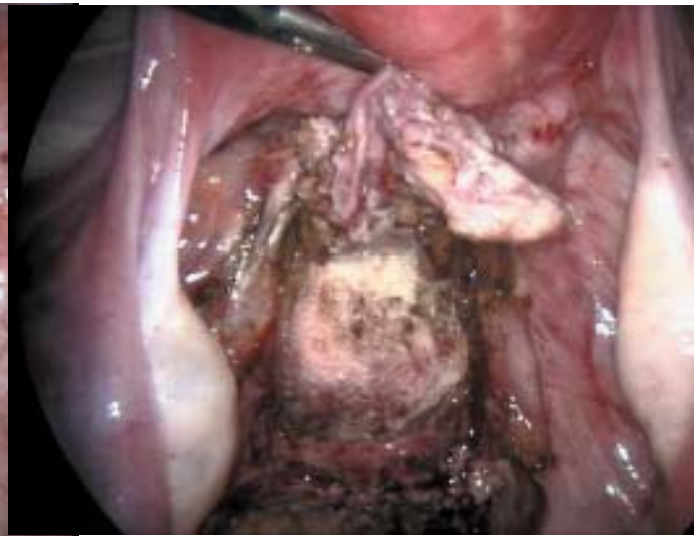
ENDOMETRİOZİSLE İLİŞKİLİ PELVİK AĞRI PRESAKRAL NÖREKTOMİ

- **Komplikasyonlar**
  - Kanama
  - Barsak disfonksiyonu
  - Mesane disfonksiyonu
  - Üreter hasarı

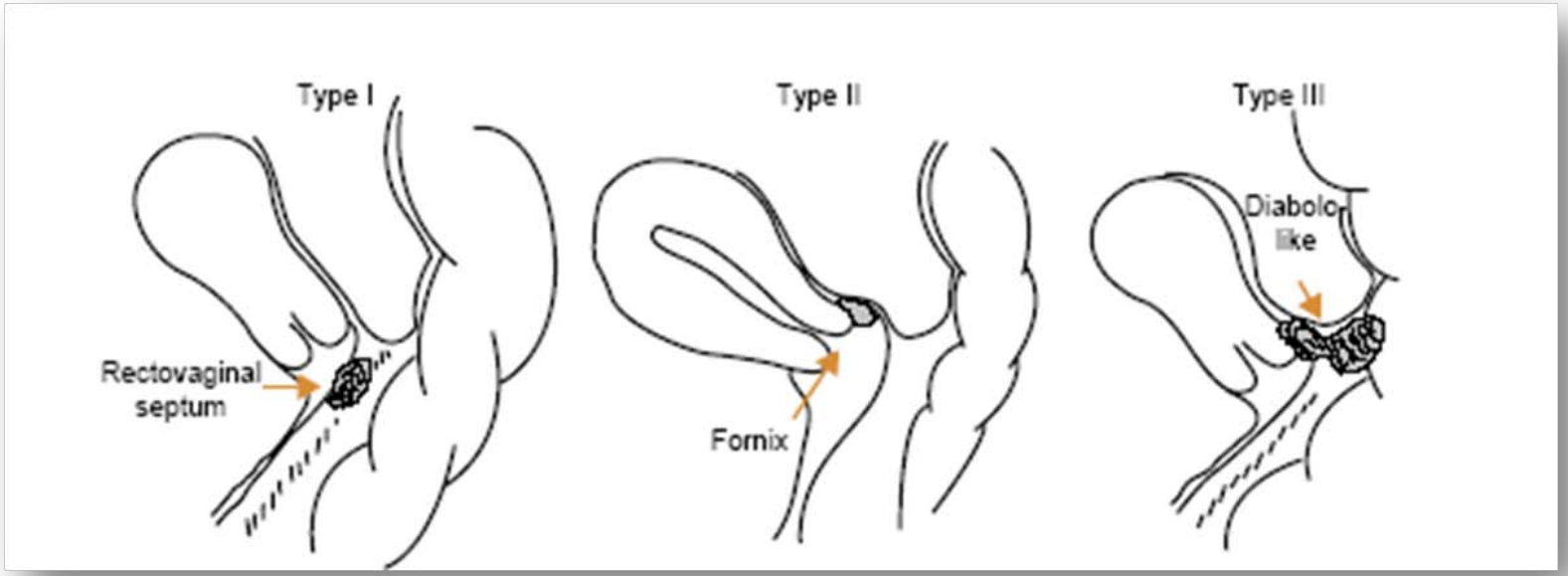
- **İyi seçilmiş, kronik orta hat pelvik ağrısı olan hastalara önerilebilir**

Vercellini P. Bailliere's Clin Obstet Gynecol 2000

Rektovajinal Endometriozis

Rektovajinal Endometriozis



- Cerrahiden fayda görmektedirler
- 250 olgu, eksizyonel tedavi
  - %70 pelvik ağrıda kür
  - 5 yıl sonunda %5 ağrıda rekürrens

- Koninckx PR. Curr Opin Obstet Gynecol 1994

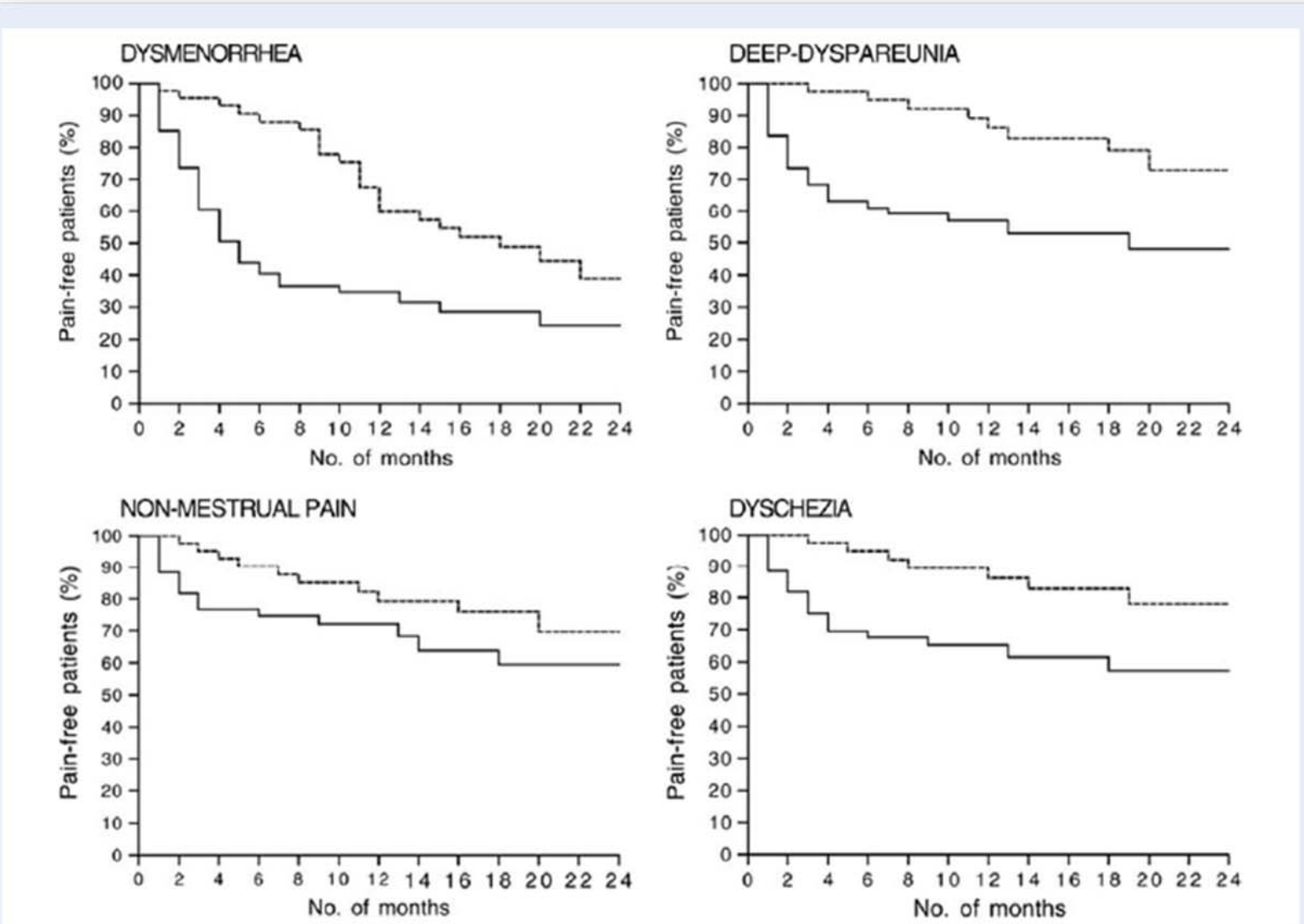
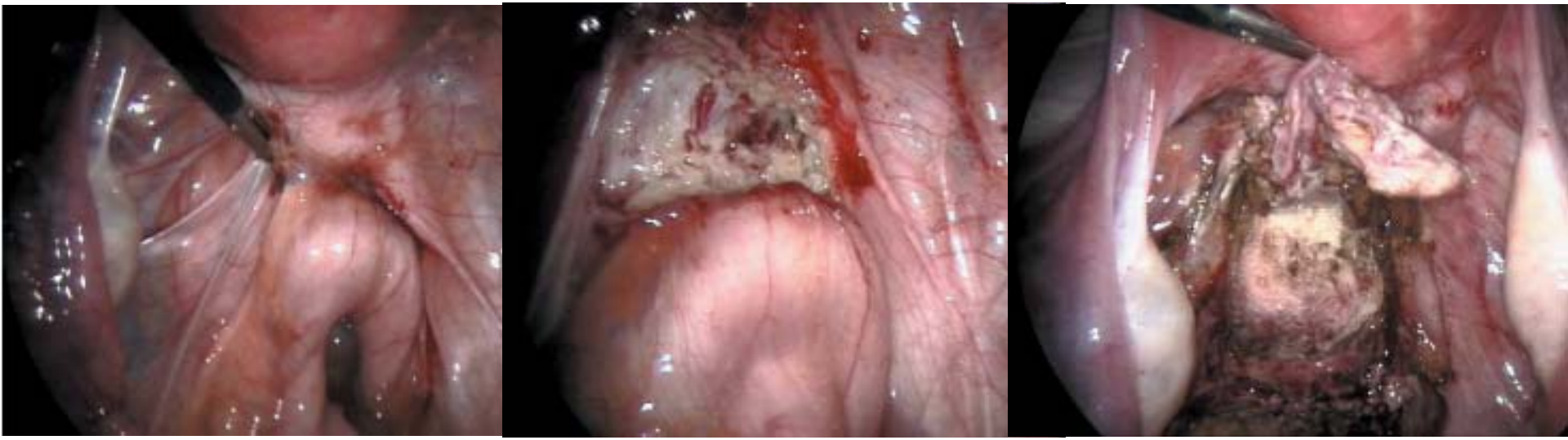


Figure 3 Time to recurrence of symptoms during follow-up of 105 women with rectovaginal endometriosis who had conservative surgery at laparotomy (dashed line) or expectant management (straight line). From Vercellini *et al.* (2006b), reproduced with permission of the publisher.

Rektovajinal Endometriozis



- Dismenoreye ek olarak disparoni ve diskezi
- Çalışmalar retrospektif ve heterojen
- Radikal konzervatif cerrahi yaklaşım
  - Rektal rezeksiyona infiltrasyonun değil semptomun ağırlığına göre karar vermeli
  - Pre-op hastadan onam

ENDOMETRİOZİSLE İLİŞKİLİ PELVİK AĞRI HİSTEREKTOMİ

- Şiddetli şikayetleri olan ve diğer tüm tedavilerin başarısız olduğu hastalarda
- Fertilitesini tamamlamış olgularda
- Histerektomiye ek olarak lezyonların olduğu alanlar da çıkarılmalı (debulking)
- BSO eklenmeyen olgularda başarı daha düşük (nüks)
- Menopozal semptomlar için östrojen-progestojen tedavisi (böylece nüks azalır, %3.5)

TEDAVİ SEÇENEKLERİ

- Endometriozisin kronik bir hastalık olduğu ve hormonal veya cerrahi tedavi sonrasında rekürrensin yüksek olduğu hatırlanmalıdır

POSTOPERATİF MEDİKAL TEDAVİ

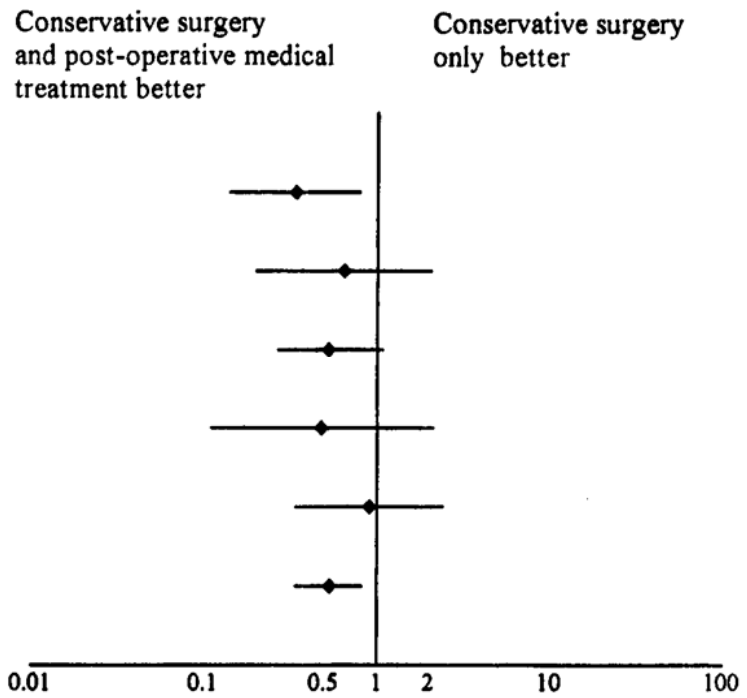
- **Seçenekler:**
  - **Oral kontraseptif**
  - **GnRH agonisti**
  - Danazol
  - Progestinler

Endometriozis kaynaklı ağrıda konzervatif cerrahi sonrasında medikal tedavi

- Post-op rekürrens takip süresine göre değişmekle beraber %20-60
  - *Vercellini, BJOG 1999; Hornstein, Fertil Steril 1997*
- Post-op tedavi ağrısız süreci uzatabilir ve tekrar cerrahi ihtiyacını azaltabilir
  - *Telimaa, Gynecol Endocr 1987;Vercellini, BJOG 1999; Hornstein, Fertil Steril 1997*
- Fakat, 3 aydan kısa süreli tedavinin faydası yok
  - *Parazzini, AJOG 1994; Bianchi, Hum Reprod 1999; Busacca, Hum Reprod 2001*

Randomized trials evaluating the benefit of post-operative medical treatment in endometriosis-associated pain

Trial Identifier	Pain Recurrences / Patients	
	Experimental	Control
Hornstein *et al.* (42)	15/49	25/44
Bianchi *et al.* (47)	7/31	9/29
Vercellini *et al.* (46)	19/81	27/74
Muzii *et al.* (43)	3/33	6/35
Busacca *et al.* (48)	10/44	11/45
Common odds ratio		



Breslow-Day = 2.12 ($P = 0.71$)

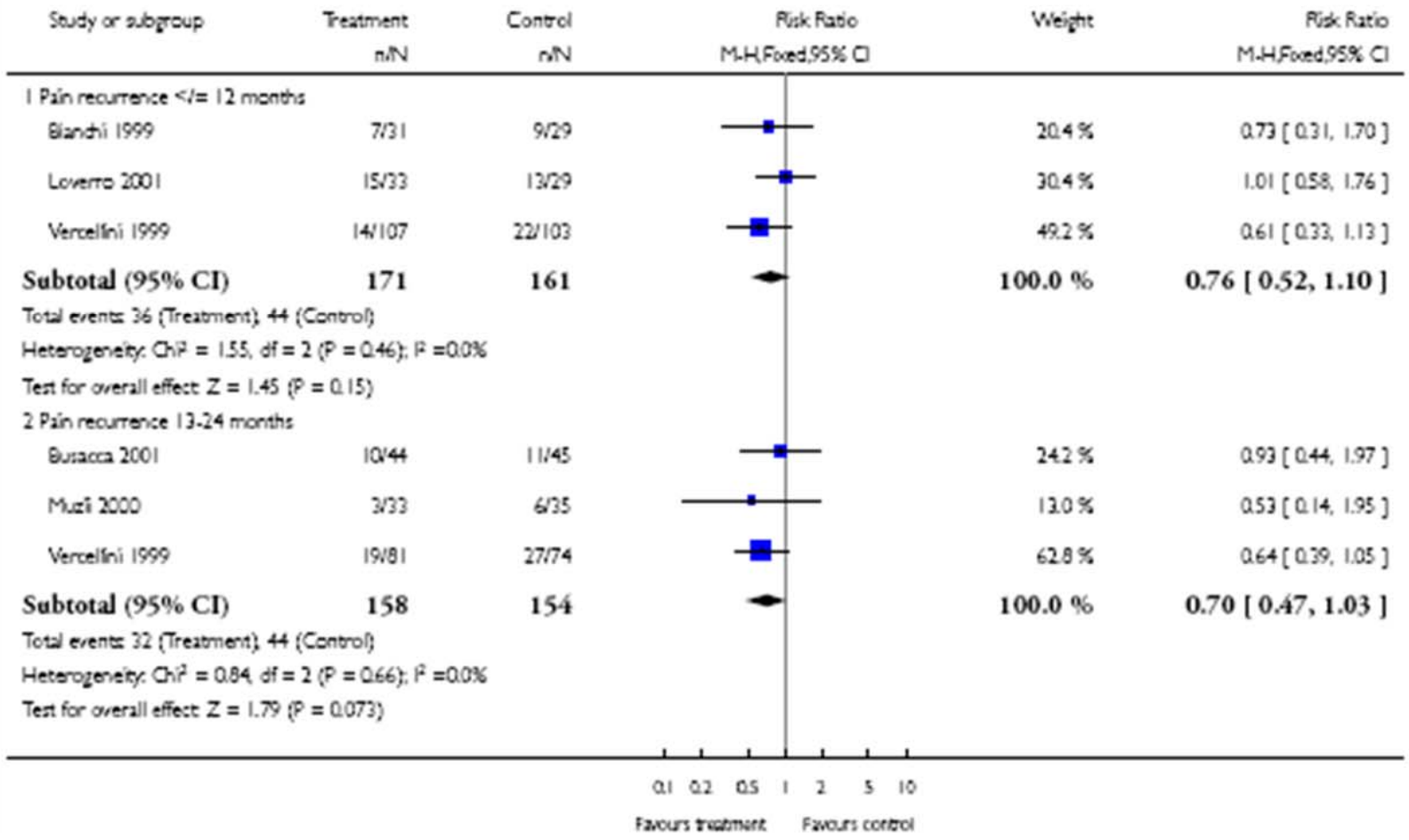
Vercellini, Obstet Gynecol Clin N Am 2003

Analysis 2.1. Comparison 2 Post-surgical medical therapy vs no therapy, Outcome 1 Pain (dichotomous).

Review: Pre and post operative medical therapy for endometriosis surgery

Comparison: 2 Post-surgical medical therapy vs no therapy

Outcome: 1 Pain (dichotomous)



Citation: Furness S, Yap C, Farquhar C, Cheong YC. Pre and post operative medical therapy for endometriosis surgery. *Cochrane Database of Systematic Reviews* 2004, Issue 3. Art. No.: CD003678. DOI: 10.1002/14651858.CD003678.pub2.

The effect of surgery for symptomatic endometriosis: the other side of the story

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Figure 4 Flow-chart describing a proposed diagnostic and therapeutic progression for the management of chronic pelvic pain associated with endometriosis in premenopausal women not previously operated for the same condition.

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Table II Current treatments for endometriosis-associated pain.

Surgery	**Can be effective over short-term**	
	High recurrence of pain symptoms may be due to:	**Remodeling of CNS (some of which occurred before surgery)** **Role of reproductive tract in reactivating pain** **Incomplete removal (that may also increase pain) due to:** Poor technical skill because of difficult lesion locations Lack of recognition of variable appearance of lesions Recurrence of lesions
	Surgical studies difficult to design and conduct due to:	**Poor recognition of the variable appearance and location of lesions** **High loss to follow-up** **Need to treat recurrence of pain symptoms** **Underreporting of analgesic, hormonal and alternative medication** **Poorly standardized approach to diagnosis** Visual inspection—but variable appearance Histologic confirmation—but may be technically difficult to obtain or false negative **Poorly standardized approach to correlating lesions and pain** **No standardized recording of pain location and lesion location** Types of lesions may not be equivalent in their role in pain DIE most associated with pain symptoms Location—hyperalgesia in the cul de sac Lesion appearance may not be equivalent in the role in pain **Poorly standardized approach to treatment** Evolving technology Many surgical tools that may not be equally effective Excision versus ablation Timing of surgery during the menstrual cycle **Poorly understood role of adhesions (which may be underreported) formed as a result of surgery have unknown effect on symptom recurrence** Mechanical Engage the CNS, possibly innervated Associated with endometriosis lesions

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Follow-up report on a randomized controlled trial of laser laparoscopy in the treatment of pelvic pain associated with minimal to moderate endometriosis

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Objective: To assess the longer term efficacy of laparoscopic laser surgery in the treatment of painful pelvic endometriosis and to observe the natural history of the disease at second-look laparoscopy in a control group.

Design: One-year follow-up of a prospective, randomized, double-blind controlled trial.

Setting: A referral center for the laparoscopic laser treatment of endometriosis.

Patient(s): Sixty-three patients with pelvic pain and minimal to moderate endometriosis.

Intervention(s): After the 6-month follow-up visit, the randomization code was broken, and follow-up was continued to 1 year. Symptomatic patients were offered second-look laser laparoscopy.

Main Outcome Measure(s): Continued symptom relief at 1 year after treatment and findings at second-look laparoscopy in symptomatic controls.

Result(s): Symptom relief continued at 1 year in 90% of those who initially responded. All symptomatic controls had a second-look procedure, with 7 (29%) showing disease progression, 7 (29%) showing disease regression, and 10 (42%) having static disease.

Conclusion(s): The benefits of laser laparoscopy for painful pelvic endometriosis are continued in the majority of patients at 1 year. Untreated painful endometriosis will progress or remain static in the majority of patients but will spontaneously improve in others. (Fertil

18/32 = %56 opere edilen grup hala iyi
%44 ağrının rekürrensi

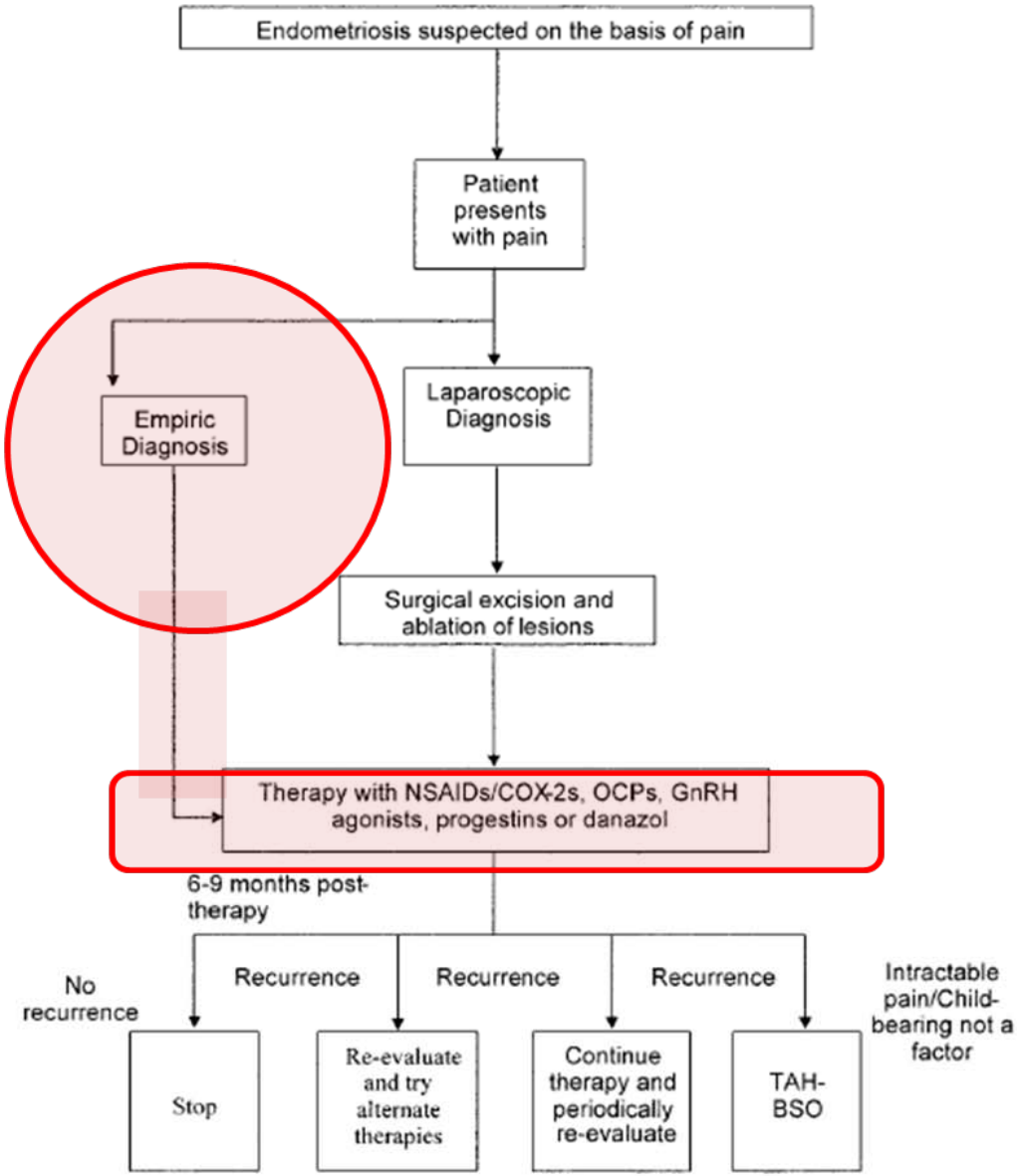

Figure 2. Endometriosis treatment algorithm.