

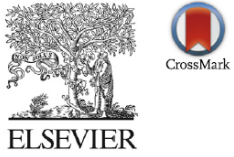
WHAT DO WE KNOW ABOUT ENDOMETRIOSIS IN ADOLESCENTS?

ERTAN SARIDOĞAN

University College London Hospital

Enigma of endometriosis in adolescents

- What is the true prevalence of adolescent endometriosis?
- Are only early forms of endometriosis seen in adolescents?
- Is adolescent endometriosis a progressive disease?
- Should surgery be performed early to avoid progression?
- Is adolescent endometriosis more likely to resolve?
- Should surgery be avoided as much as possible?
- Is empirical treatment harmful by masking the symptoms?



Editorial

Adolescent Endometriosis

- Adolescents with endometriosis may endure the consequences of this disease for much longer, compared to adult women

- Gynaecologists may not be the most confident physicians in dealing with teenage girls!

Myths about teenage endometriosis

- Dysmenorrhoea in teenagers is 'normal' and is due to 'primary dysmenorrhoea'
- Teenage endometriosis is always minimal or mild
- Severe endometriosis in teenagers is rare
- Surgery for diagnosis or treatment is not justified in teenagers for 'simple period pains'

Endometriosis: a premenopausal disease? Age pattern in 42,079 patients with endometriosis

Dietmar Haas · Radek Chvatal · Björn Reichert ·
Stefan Renner · Omar Shebl · Helge Binder ·
Peter Wurm · Peter Oppelt

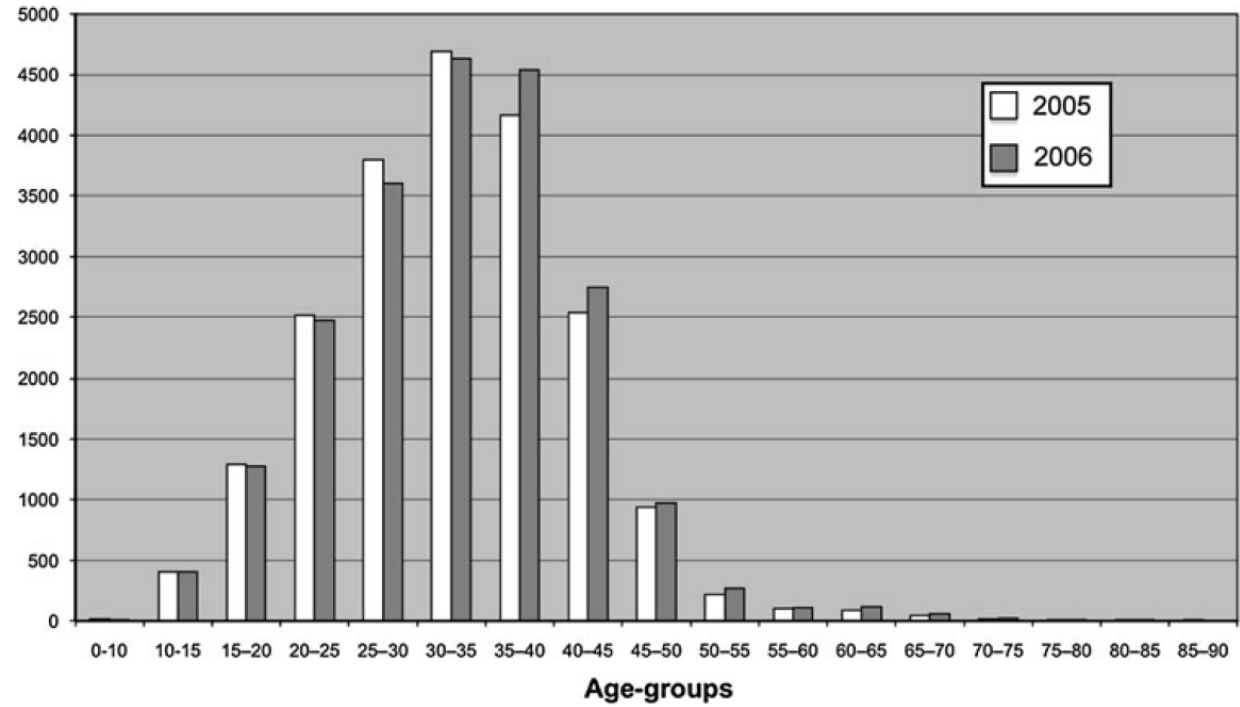


Table 1 Age group distribution of 42,079 patients with endometriosis in Germany, 2005–2006

Age groups	2005	2006	2005 + 2006
0–10	1	0	1
10–15	15	7	22
15–20	408	405	813
20–25	1,292	1,277	2,569
25–30	2,519	2,472	4,991
30–35	3,795	3,600	7,395
35–40	4,688	4,631	9,319
40–45	4,167	4,537	8,704
45–50	2,535	2,746	5,281
50–55	935	975	1,910
55–60	215	266	481
60–65	103	112	215
65–70	90	118	208
70–75	43	57	100
75–80	20	24	44
80–85	4	13	17
85–90	4	4	8
90–95	1	0	1
Summary	20,835	21,244	42,079

Endometriosis: a premenopausal disease? Age pattern in 42,079 patients with endometriosis

Dietmar Haas · Radek Chvatal · Björn Reichert ·
Stefan Renner · Omar Shebl · Helge Binder ·
Peter Wurm · Peter Oppelt

- Age distribution
 - Age 10-15 0.05%
 - Age 15-20 1.9%

Dysmenorrhoea in adolescents

- Prevalence ~ 45-95%
- Very severe forms ~ 10-25%

Human Reproduction Update, Vol.21, No.6 pp. 762–778, 2015

Advanced Access publication on September 7, 2015 doi:10.1093/humupd/dmv039

human
reproduction
update

What we know about primary dysmenorrhea today: a critical review

Stella Iacovides^{1,*}, Ingrid Avidon^{1,2} and Fiona C. Baker³

DOI: 10.1111/ajo.12614

ORIGINAL ARTICLE

Endometriosis education in schools: A New Zealand model examining the impact of an education program in schools on early recognition of symptoms suggesting endometriosis

Deborah Bush^{1,2}, Emily Brick¹, Michael C East² and Neil Johnson^{3,4}

TABLE 1 Student evaluation data, 2015

Region of New Zealand	Experience discomforting menstrual symptoms <i>n</i> (%)	Experience distressing menstrual symptoms <i>n</i> (%)	Sometimes or always miss school due to menstrual symptoms <i>n</i> (%)
Canterbury <i>n</i> = 1209	780 (65%)	165 (14%)	326 (27%)
Hawkes Bay <i>n</i> = 431	277 (64%)	43 (10%)	109 (25%)
Nelson <i>n</i> = 479	300 (63%)	58 (12%)	122 (25%)
Marlborough <i>n</i> = 121	64 (53%)	28 (23%)	45 (37%)
Overall 2015 <i>n</i> = 2240	1421 (63%)	294 (13%)	602 (27%)

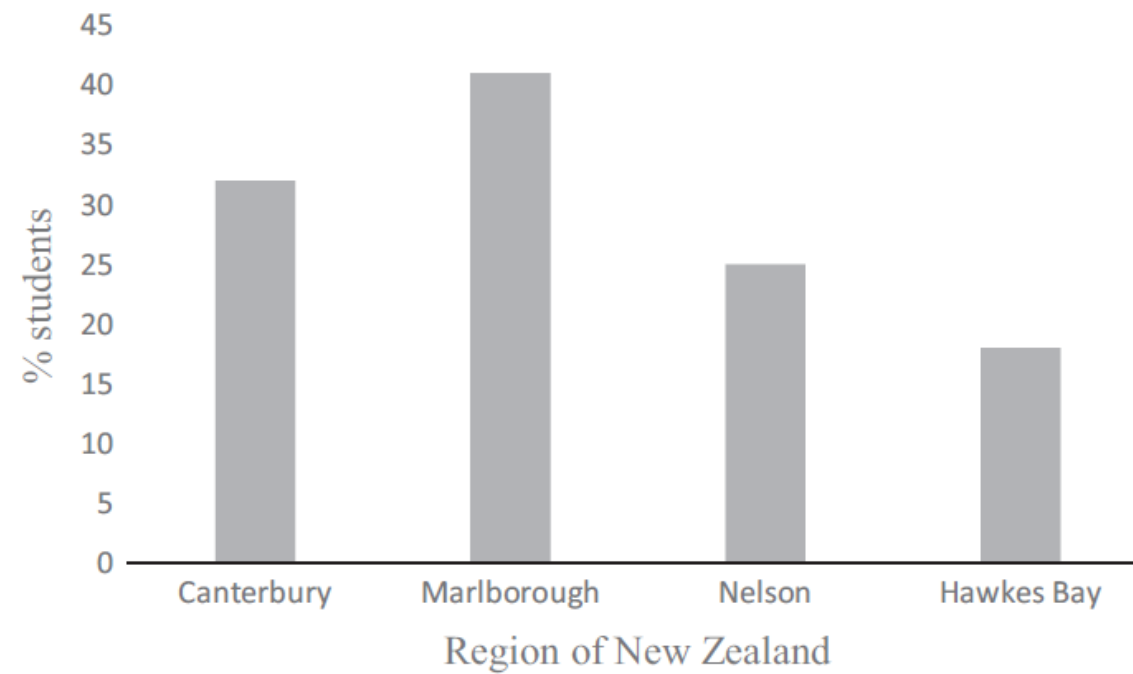


FIGURE 1 Student awareness of endometriosis, 2015.

Prevalence of endometriosis diagnosed by laparoscopy in adolescents with dysmenorrhea or chronic pelvic pain: a systematic review

E.B. Janssen^{1†}, A.C.M. Rijkers^{1†}, K. Hoppenbrouwers², C. Meuleman^{1‡},
and T.M. D’Hooghe^{1‡*}

- Endometriosis was present in
 - 62% in adolescents undergoing laparoscopy
 - 75% in adolescents with CPP resistant to medical treatment
 - 70% in adolescents with dysmenorrhoea
 - 49% in adolescents with CPP not necessarily resistant to medical treatment

Review Article

The Prevalence of Endometriosis in Adolescents with Pelvic Pain: A Systematic Review



Martin Hirsch MRCOG, MD(Res)^{1,*}, Rima Dhillon-Smith MRCOG, PhD², Alfred S. Cutner FRCOG, MD(Res)¹, Magnus Yap³, Sarah M. Creighton FRCOG, MD(Res)¹

¹EGA Institute for Women's Health, University College London, London, UK

²Birmingham Women's and Children's Foundation Trust, Institute of Metabolism and Systems Research, University of Birmingham, Birmingham, UK

³The University of Birmingham School of Medicine, University of Birmingham, Birmingham, UK

Risk factors

- Early menarche
- Family history
- Mullerian anomalies

Adolescent Endometriosis in China: A Retrospective Analysis of 63 Cases

Yunpeng Yang MD¹, Yin Wang MD¹, Jie Yang MD, Shu Wang MD, Jinghe Lang MD^{*,1}

Department of Obstetrics and Gynecology, Peking Union Medical College Hospital, Peking Union Medical College, Chinese Academy of Medical Science, Beijing, China

- 15/61 (24.6%) mullerian anomalies
 - Mostly obstructive anomalies

Clinical Characteristics and Postoperative Symptoms of 85 Adolescents with Endometriosis



Xiao-Chen Song MD¹, Xin Yu MD^{1,*}, Min Luo MD², Qi Yu MD², Lan Zhu MD¹

¹Department of General Gynecological Center, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, Beijing, China

²Department of Gynecological Endocrine and Reproductive Center, Peking Union Medical College Hospital, Chinese Academy of Medical Sciences, Beijing, China

- 44/85 (51.8%) genital malformations

Myth No.2

- Teenage endometriosis is always minimal or mild
- Severe endometriosis in teenagers is rare

Prevalence of endometriosis diagnosed by laparoscopy in adolescents with dysmenorrhea or chronic pelvic pain: a systematic review

E.B. Janssen^{1‡}, A.C.M. Rijkers^{1‡}, K. Hoppenbrouwers², C. Meuleman^{1‡}, and T.M. D'Hooghe^{1‡}

- Moderate endometriosis 18%
- Severe endometriosis 14%

Adolescent Endometriosis in China: A Retrospective Analysis of 63 Cases

Yunpeng Yang MD ¹, Yin Wang MD ¹, Jie Yang MD, Shu Wang MD, Jinghe Lang MD ^{*,1}

Department of Obstetrics and Gynecology, Peking Union Medical College Hospital, Peking Union Medical College, Chinese Academy of Medical Science, Beijing, China

- 63 patients \leq 20 years
- rASRM stage
 - 5 (7.9%) stage I
 - 2 (3.2%) stage II
 - 33 (52.4%) stage III
 - 23 (36.5%) stage IV

ORIGINAL ARTICLE

Clinical Characteristics of Adolescent Endometriosis

GORDON D. DAVIS, M.D., ETIENNE THILLET, M.D., AND
JUDITH LINDEMANN, R.N., M.S.N., F.N.P.

Table 4. Staging of Endometriosis in 36 Adolescent Patients

	<i>n</i>	% ^a
Acosta		
Mild	13	36
Moderate	7	19
Severe	16	44
r-AFS		
Stage I	10	28
Stage II	8	22
Stage III	7	19
Stage IV	11	31

^aPercentages may not total to 100 due to rounding error.

Original Study

Endometriosis in Young Women: The Experience of GISE

Mauro Vicino, MD¹, Fabio Parazzini, MD², Sonia Cipriani, ScD², and Giada Frontino²

¹II Clinica Ginecologica Ostetrica, Bari; ²Fondazione Policlinico Mangiagalli, Regina Elena, Milano, Italy

Stage	n	%
I	7	18.4
II	5	13.2
III	13	34.2
IV	13	34.2

Original Article

**Adolescent Endometriosis: Report of a Series of 55 Cases With
a Focus on Clinical Presentation and Long-Term Issues**

Alain Audebert, MD, Lise Lecointre, MD*, Karolina Afors, MD, Antoine Koch, MD,
Arnaud Wattiez, MD, and Cherif Akladios, MD

- 33/55 (60%) Stage I/II
- 22/55 (40%) Stage IV
- 6/55 (10.9%) Deep endometriosis



Available online at www.sciencedirect.com



European Journal of Obstetrics & Gynecology and
Reproductive Biology 125 (2006) 248–250



Laparoscopic treatment of endometriosis in teenagers

A.I. Stavroulis^{*}, E. Saridogan, S.M. Creighton, A.S. Cutner

*Elizabeth Garrett Anderson and Obstetric Hospital, University College London Hospitals NHS Foundation Trust,
Huntley Street, London WC1E 6DH, UK*

Received 25 January 2005; received in revised form 8 August 2005; accepted 17 August 2005

Stavroulis et al 2006

- 35 teenagers with CPP resistant to COC + NSAIDs
- 11 (35%) endometriosis
- 5 mild/moderate endometriosis
- 6 severe endometriosis
 - 2 rectovaginal endometriosis
 - 1 rectovaginal and uterovesical DIE
 - 1 rectosigmoid endometriosis
 - 1 ureteric endometriosis

Human Reproduction, Vol.28, No.8 pp. 2026–2031, 2013

Advanced Access publication on June 5, 2013 doi:10.1093/humrep/det243

human
reproduction

OPINION

Endometriosis in adolescents is a hidden, progressive and severe disease that deserves attention, not just compassion

I. Brosens^{1,*}, S. Gordts¹, and G. Benagiano²

Original Article

**Adolescent Endometriosis: Report of a Series of 55 Cases With
a Focus on Clinical Presentation and Long-Term Issues**

Alain Audebert, MD, Lise Lecointre, MD*, Karolina Afors, MD, Antoine Koch, MD,
Arnaud Wattiez, MD, and Cherif Akladios, MD

- Mean follow up 97 months
- 50/55 have data
- 17/50 had second look laparoscopy
 - 2/17 marked increase in severity
 - 5 new and 7 recurrent endometriomas
 - 9 DE and 3 recurrent DE

Is adolescent endometriosis a progressive disease that needs to be diagnosed and treated?

J.L.H. (Hans) Evers
Editor-in-Chief

Table: Natural course of disease between first and second look laparoscopy in untreated patients.

Reference	n patients	Regression	Stable	Progression
Thomas, 1987	17	9	0	8
Telimaa, 1987	12	1	8	3
Mahmood, 1990	11	3	1	7
Overton, 1994	15	8	3	4
Sutton, 1994	24	7	10	7
Harrison, 2000	43	27	12	4
Abbott, 2004	18	4	6	8
TOTAL	140	59 (42%)	40 (29%)	41 (29%)

Big Picture of Endometriosis Helps Provide Guidance on Approach to Teens: Comparative Historical Data Show Endo Starting Younger, Is More Severe

Mary Lou Ballweg, Founder
Endometriosis Association, Milwaukee, Wisconsin

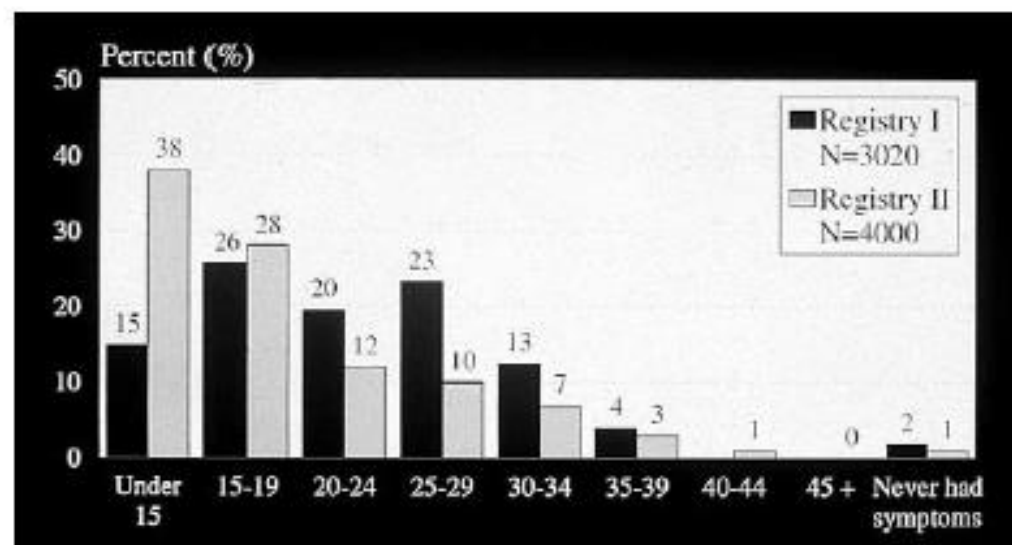


Fig. 1. Age of first pelvic symptoms.

Questioning patients about their adolescent history can identify markers associated with deep infiltrating endometriosis

*Charles Chapron, M.D.,^{a,b,c} Marie-Christine Lafay-Pillet, M.D.,^a Elise Monceau, M.D.,^a
Bruno Borghese, Ph.D.,^{a,b,c} Charlotte Ngô, Ph.D.,^{a,d} Carlos Souza, M.D.,^{a,e} and Dominique de Ziegler, M.D.^a*

In addition, symptoms experienced at the time of menarche and adolescence were also noted, including for each patient: [1] age at menarche; [2] need to prescribe oral contraceptive (OC) pills because of primary dysmenorrhea intensity, with age at first prescription and duration of use; [3] absenteeism from school during menstruation in adolescence. Patients were arbitrarily divided into two groups depending on whether OC pills were prescribed before or after a cutoff arbitrarily set at 18 years of age.

TABLE 2

Endometriotic patients: characteristics according to the existence of DIE lesions.

Characteristic	Group A No DIE (n = 131)	Group B DIE (n = 98)	P value	OR 95% CI
Age (y)	31.9 ± 5.6	31.0 ± 4.8	NS	
Gravidity	0.6 ± 0.9	0.4 ± 0.8	NS	
Parity	0.2 ± 0.6	0.2 ± 0.6	NS	
Height (cm)	165.9 ± 6.3	164.8 ± 5.9	NS	
Weight (kg)	60.0 ± 10.1	57.8 ± 9.3	NS	
Body mass index (kg/m ²)	21.9 ± 3.8	21.3 ± 3.2	NS	
Rectorrhagia	5 (3.8)	14 (14.3)	.001	4.2 (1.5–12.1)
Hematuria	3 (2.3)	4 (4.1)	NS	
Infertility	40 (30.5)	25 (25.5)	NS	
Primary	32 (24.4)	19 (19.4)	NS	
Secondary	8 (6.1)	6 (6.1)	NS	
Duration of infertility (mo)	41.9 ± 41.7	28.4 ± 9.6	NS	
Preoperative painful symptoms scores ^{a,b}				
Dysmenorrhea	5.7 ± 3.1	7.3 ± 2.4	.0001	
Deep dyspareunia	2.6 ± 3.1	4.7 ± 3.3	.0001	
Noncyclic chronic pelvic pain	1.7 ± 2.7	3.6 ± 3.2	.0001	
Gastrointestinal symptoms	1.3 ± 2.5	4.8 ± 3.7	.0001	
Lower urinary tract symptoms	0.1 ± 0.6	2.1 ± 3.4	.0001	
Pelvic pain	67 (51.1)	88 (89.8)	.0001	9.0 (4.2–19.5)
Duration (mo) ^a	26.3 ± 40.7	46.7 ± 55.8	.01	
Dysmenorrhea	106 (80.9)	92 (93.9)	.002	4.2 (1.5–11.4)
Primary	58 (44.3)	50 (51.0)	.003	4.1 (1.5–11.7)
Secondary	48 (36.6)	42 (42.9)	.003	4.2 (1.5–12.0)
Deep dyspareunia	69 (52.7)	68 (69.4)	.004	2.4 (1.3–4.3)
Family history of endometriosis	6 (4.6)	13 (13.3)	.02	3.2 (1.2–8.8)
Age at menarche (y)	13 ± 1.5	13 ± 1.6	NS	
Absenteeism from school during menstruation	33 (25.2)	37 (37.7)	.04	1.7 (1–3)
Prescription of OC pills because of severe primary DM	15 (25.9)	29 (58.0)	.001	4.5 (1.9–10.4)
Age (y)	18.1 ± 3.2	16.5 ± 2.4	.07	
Duration of use (y)	5.1 ± 3.8	8.4 ± 4.7	.02	

Note: Data are presented as mean ± SD or n (%). DM = dysmenorrhea; DP = deep dyspareunia; OC = oral contraceptive; NS = not significant; OR = odds ratio; 95% CI = 95% confidence interval.

^a Visual analogue scale.

^b Sometimes more than one for the same patient.

TABLE 3

Endometriotic patients: distribution of OR and 95% CI between control and study groups for VAS and age at prescription of oral contraceptive pills for primary dysmenorrhea.

Characteristic	Group A No DIE (n = 131)	Group B DIE (n = 98)	P value	OR 95% CI
Preoperative painful symptoms scores ^a				
VAS >7				
Dysmenorrhea	44 (35.6)	55 (56.1)	.0001	2.8 (1.6–4.6) ^b
Deep dyspareunia	12 (9.2)	20 (20.4)	.015	2.5 (1.2–5.5) ^b
Noncyclic chronic pelvic pain	5 (3.8)	12 (12.2)	.016	3.5 (1.2–10.3) ^b
Gastrointestinal symptoms	6 (4.6)	28 (28.6)	.0001	8.6 (3.4–21.7) ^b
Lower urinary tract symptoms	0 (0)	15 (15.3)	.0001	—
Prescription of OC pills because of severe primary DM				
Age <18 y	8 (6.1)	21 (21.4)	.001	4.2 (1.8–10.0) ^c

Note: Data are presented as n (%).VAS = visual analogue scale; DM = dysmenorrhea; OC = oral contraceptive pills; OR = odds ratio; 95% CI = 95% confidence interval.

^a Sometimes more than one for the same patient.

^b OR for VAS >7.

^c OR for OC pills <18 years.

Chapron. Adolescent history and deep endometriosis. *Fertil Steril* 2011.

Diagnosis

- History
- Examination
- Imaging
 - Ultrasound
 - MRI

Symptoms

- Dysmenorrhoea
- Non-cyclical pain, CPP
- Dyschesia
- Intestinal cramps
- Constipation
- Exercise pain
- Bladder pain
- Dyspareunia

Adolescence and endometriosis: symptoms, ultrasound signs and early diagnosis

Francesco G. Martire, M.D.,^a Lucia Lazzeri, M.D., Ph.D.,^b Francesca Conway, M.D.,^a Terry Siciliano, M.D.,^a Adalgisa Pietropolli, M.D., Ph.D.,^a Emilio Piccione, M.D., Ph.D.,^a Eugenio Solima, M.D., Ph.D.,^c Gabriele Centini, M.D., Ph.D.,^b Errico Zupi, M.D.,^b and Caterina Exacoustos, M.D., Ph.D.^a

- 270 young women aged 12-20

Patients characteristics, indications for transvaginal ultrasound scan, and symptoms of adolescents included in the study.

Parameter	Total population (n = 270)	Age group (y)		P value
		12–16 (n = 81)	17–20 (n = 189)	
Patient characteristic				
US indications				
Irregular menstrual period	41 (15.2)	15 (18.5)	26 (13.7)	.356
Dysmenorrhea	28 (10.4)	15 (18.5)	13 (6.9)	.007
Heavy menstrual bleeding	56 (20.7)	3 (3.7)	53 (28.0)	< .001
Chronic pelvic pain	25 (9.2)	12 (14.8)	13 (6.9.)	.064
Congenital uterine anomalies	10 (3.7)	6 (7.4)	4 (2.1)	.070
Ovarian cyst	11 (4.1)	3 (3.7)	8 (4.2)	1.000
Control	65 (24.1)	13 (16.0)	52 (27.5)	.045
Others	14 (5.1)	5 (6.2)	9 (4.8)	.765

Symptoms suggestive of endometriosis

Patients characteristics, indications for transvaginal ultrasound scan, and symptoms of adolescents included in the study.

Parameter	Total population (n = 270)	Age group (y)		P value
		12–16 (n = 81)	17–20 (n = 189)	
Patient characteristic				
Endometriosis symptoms				
Dysmenorrhea	147 (54.4)	37 (45.7)	110 (58.2)	.063
Dyspareunia	24 (8.9)	2 (2.5)	22 (11.6)	.017
Dysuria	12 (4.4)	1 (1.1)	11 (5.8)	.115
Dyschezia	15 (5.5)	1 (1.1)	14 (7.4)	.044
Heavy menstrual bleeding	81 (30.0)	18 (22.2)	63 (33.3)	.082
Functional bowel symptoms	9 (3.3)	1 (1.1)	8 (4.2)	.286
Chronic pelvic pain	21 (7.8)	9 (11.1)	12 (6.3)	.215

Ultrasound findings

Ultrasound findings in the 270 adolescents included in the study.

Ultrasound findings	Total population (n = 270)	Age group (y)		P value
		12–16 (n = 81)	17–20 (n = 189)	
Endometriosis	36 (13.3)	6 (7.4)	30 (15.9)	.077
Endometriosis				
Negative posterior sliding sign	18 (6.7)	0 (0.0)	18 (9.5)	.002
Adnexal adhesions	18 (6.7)	1 (1.2)	17 (9.0)	.016
DIE (total)	10 (3.7)	1 (1.2)	9 (4.8)	.290
USL	7 (2.6)	0 (0.0)	7 (3.7)	.106
Rectosigmoid	2 (0.7)	0 (0.0)	2 (1.1)	1.000
Bladder	1 (0.4)	1 (1.2)	0 (0.0)	.300
Adenomyosis	16 (5.2)	2 (2.5)	14 (7.4)	.160
Endometrioma	22 (8.1)	1 (1.2)	21 (11.1)	.006

TABLE 3

Adolescents with and without ultrasound (US) findings for endometriosis, correlation with symptoms.

Symptoms related to endometriosis	Total population (n = 270)	US findings of endometriosis		P value
		Present (n = 36)	Absent (n = 234)	
Dysmenorrhea	147 (54.4)	31 (86.1)	116 (49.6)	< .001
Dyspareunia	24 (8.9)	8 (22.2)	16 (6.8)	.007
Dysuria	12 (4.4)	3 (8.3)	9 (3.8)	.205
Dyschezia	15 (5.5)	5 (13.9)	10 (4.3)	.391
Heavy menstrual bleeding	81 (30.0)	20 (55.5)	61 (26.1)	< .001
Functional bowel symptoms	9 (3.3)	4 (11.1)	5 (2.1)	.020
Chronic pelvic pain	21 (7.8)	5 (13.9)	16 (6.8)	.173

Note: Values presented as n (%), unless indicated otherwise.

Martire. Endometriosis in adolescence. *Fertil Steril* 2020.

Treatment

Analgesics

Hormonal treatment

- Combined hormonal contraceptives

- Progesterone only contraceptives

 - ?DMPA

 - ?LNG-IUS

- ?GnRHa

Surgery

Endometriosis in Adolescents

Erica C. Dun, MD, MPH, Kimberly A. Kho, MD, MPH, Vadim V. Morozov, MD,
Susan Kearney, MHSE, Jonathan L. Zurawin, MD, Ceana H. Nezhat, MD

Table 5.
Outcomes at 1 Year

Outcome	n (%)
Postoperative medical treatment ^a	
COCs	16 (64)
Progestins	3 (12)
NSAIDs	8 (32)
None	3 (12)
Pain symptoms	
Successfully resolved pain	16 (64)
Improved pain	4 (16)
Continued pain	3 (12)
Recurrent pain	2 (8)
Length of follow up (months) ^b	20.0 (18.6); 0.5–58

^aPatients may have had more than 1.

^bData are presented as the mean (SD); range.

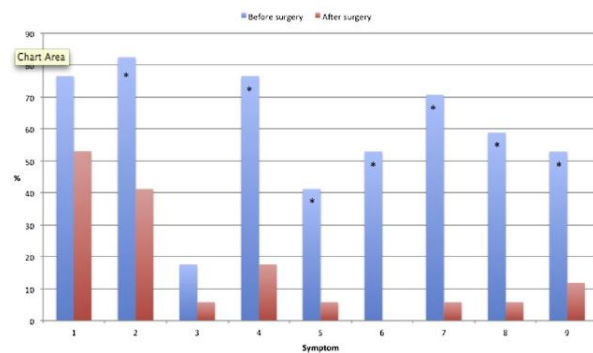
Complete laparoscopic excision of endometriosis in teenagers: is postoperative hormonal suppression necessary?

Patrick Yeung, Jr., M.D.,^a Ken Sinervo, M.D.,^b Wendy Winer, R.N.,^b and Robert B. Albee, Jr., M.D.^b

^a Department of Obstetrics & Gynecology, Duke University, Durham, North Carolina; and ^b Center for Endometriosis Care, Atlanta, Georgia

FIGURE 1

Symptoms before and after complete excision in teenagers. 1 = pelvic pain; 2 = dysmenorrhea; 3 = dyspareunia; 4 = dyschezia; 5 = constipation; 6 = tender examination; 7 = painful exercise; 8 = intestinal cramping; 9 = bladder pain. * $P < 0.05$.



Yeung. Complete laparoscopic excision of endometriosis in teenagers. *Fertil Steril* 2011.

TABLE 1

Percent of teenagers with symptoms before and after complete excision.

Symptom	Before surgery (%)	After surgery (%)
Pelvic pain	76.5	53
Dysmenorrhea	82.4	41.2
Dyspareunia	17.6	5.8
Dyschezia	76.5	17.6
Constipation	41.2	5.8
Tender exam	52.9	0
Painful exercise	70.6	5.8
Intestinal cramping	58.8	5.8
Bladder pain	52.9	11.8

Yeung. Complete laparoscopic excision of endometriosis in teenagers. *Fertil Steril* 2011.

Surgical Management of Superficial Peritoneal Adolescent Endometriosis

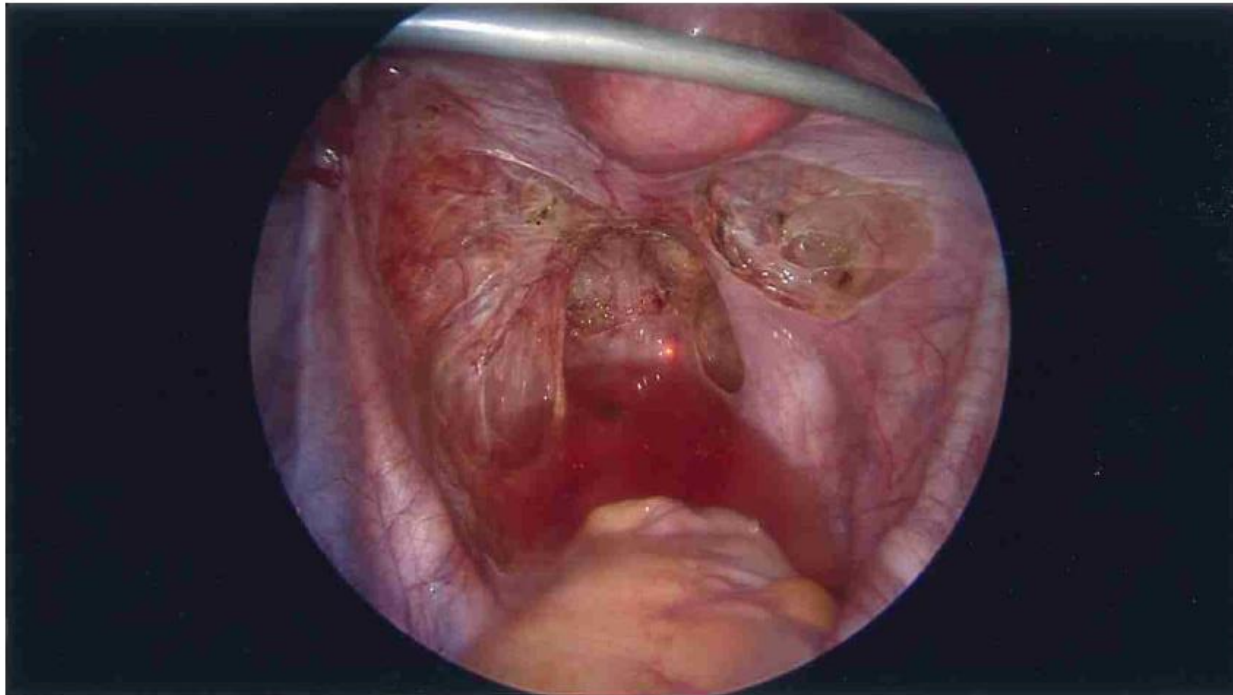
Marc R. Laufer, MD, Jon I. Einarsson, M.D

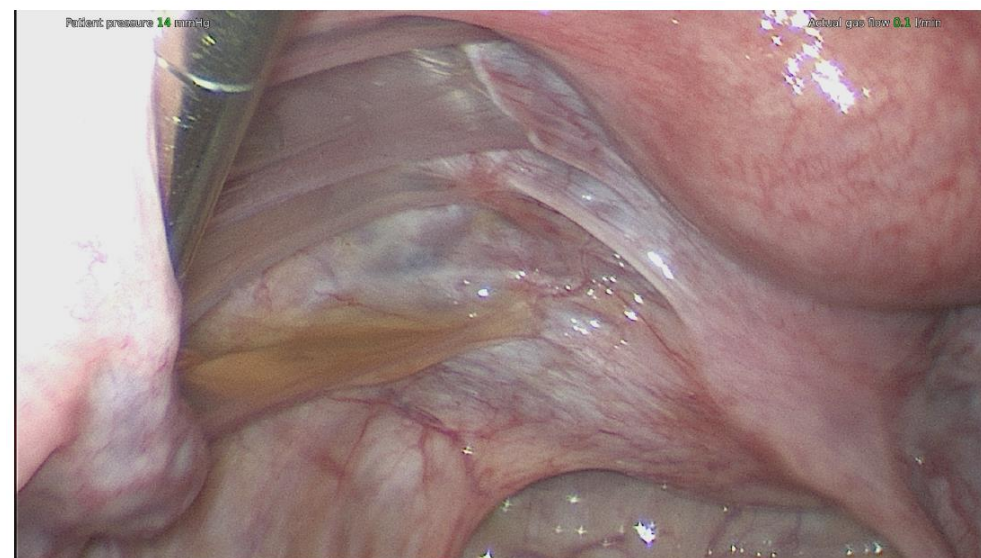
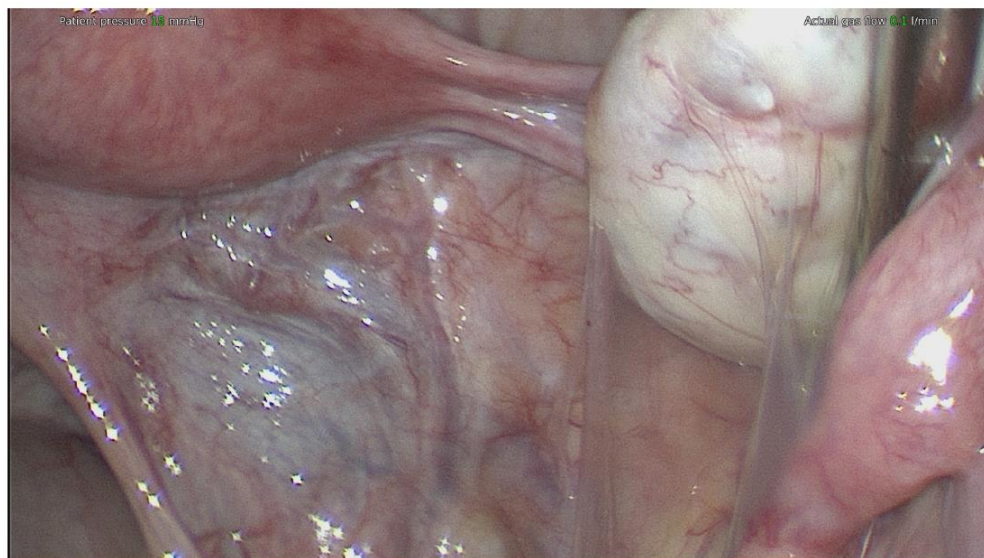
PII: S1083-3188(19)30005-1

DOI: <https://doi.org/10.1016/j.jpap.2019.01.005>

Reference: PEDADO 2318

To appear in: *Journal of Pediatric and Adolescent Gynecology*





Stavroulis et al 2006

- 5 mild/moderate endometriosis
- 6 severe endometriosis
 - 2 rectovaginal endometriosis
 - 1 rectovaginal and uterovesical DIE
 - 1 rectosigmoid endometriosis
 - 1 ureteric endometriosis

Stavroulis et al 2006

- Follow up 19-112 weeks (median 65 weeks)
- Pain free or greatly improved
 - 5/6 severe endometriosis
 - 3/5 mild/moderate endometriosis
- Partial improvement
 - 1/6 severe endometriosis
 - 1/5 mild/moderate endometriosis

Original Article

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Alain Audebert, MD, Lise Lecointre, MD*, Karolina Afors, MD, Antoine Koch, MD,
Arnaud Wattiez, MD, and Cherif Akladios, MD

- 50/55 follow up 97 months (5-315 months)
- 13/50 complete resolution or improved pain managed by medical treatment
- 27/50 MRI due to persistent pain
 - 12 no endometriosis
 - 8 Adenomyosis
- 17 second look laparoscopy
 - 5 no endometriosis
 - 2 marked progress
- 12 DE (9 new, 3 recurrent)
- 12 endometriomas (5 new, 7 recurrent)

Fertility outcomes

Reproductive Biology and Endocrinology



Research

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Endometriosis in adolescence: A long-term follow-up fecundability assessment

Gary Ventolini*, Gary M Horowitz and Ronald Long

- Stage I 3/4
- Stage II 6/11
- Stage III 3/12
- Stage IV 0/1

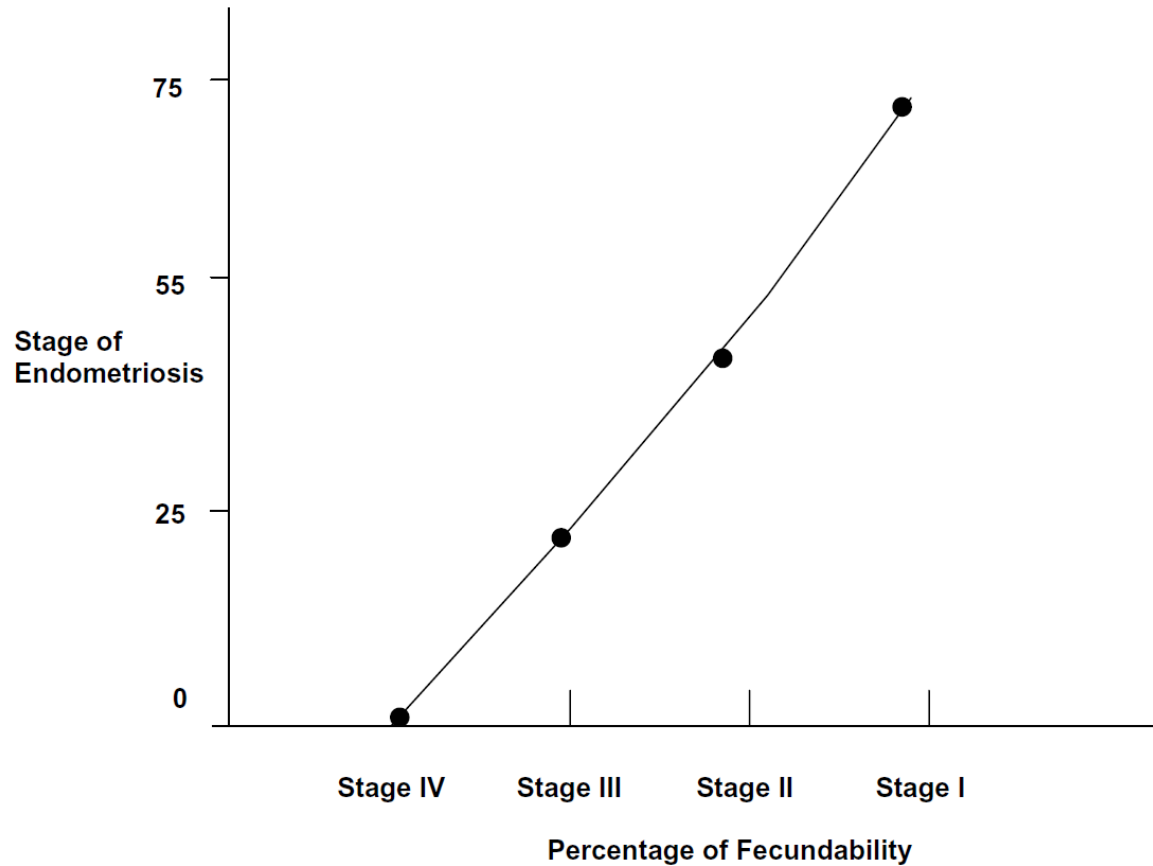


Figure I
Relationship between stage of endometriosis and fecundability. (CI = Confidence Interval)

Audebert et al – Fertility data

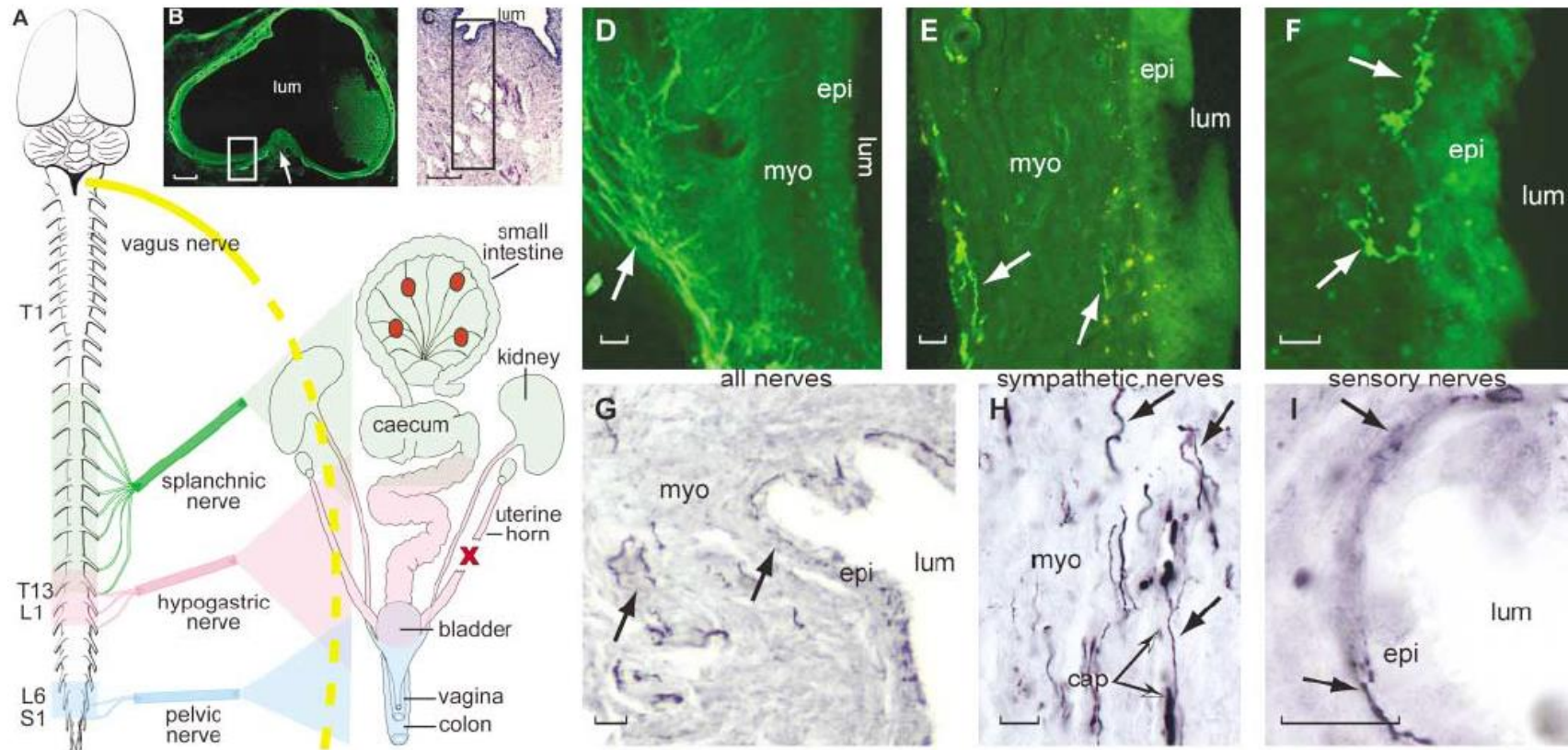
- 13/18 successful pregnancy
- 9/13 were in stage I and II

**DOES EARLY DIAGNOSIS MEAN
LESS DESTRUCTIVE SURGERY ?**

WE DO NOT KNOW !

The Pains of Endometriosis

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Centralisation of pain

- Stimulation of sensory fibers produces central sensitisation
- Long suffering is likely to result in central sensitisation
- Earlier intervention may be instrumental in prevention of centralisation

Conclusions

- Endometriosis has its roots in adolescence
- A significant proportion of adolescents with endometriosis have advanced endometriosis
- There is no reason to assume that surgery is unnecessary in the long term
- Current published evidence suggests surgical outcomes are similar to those in adult women
- Best type of surgery (excision or ablation) is not known
- Surgical confirmation and treatment is an important component of research and is crucial in determining best long term approaches