

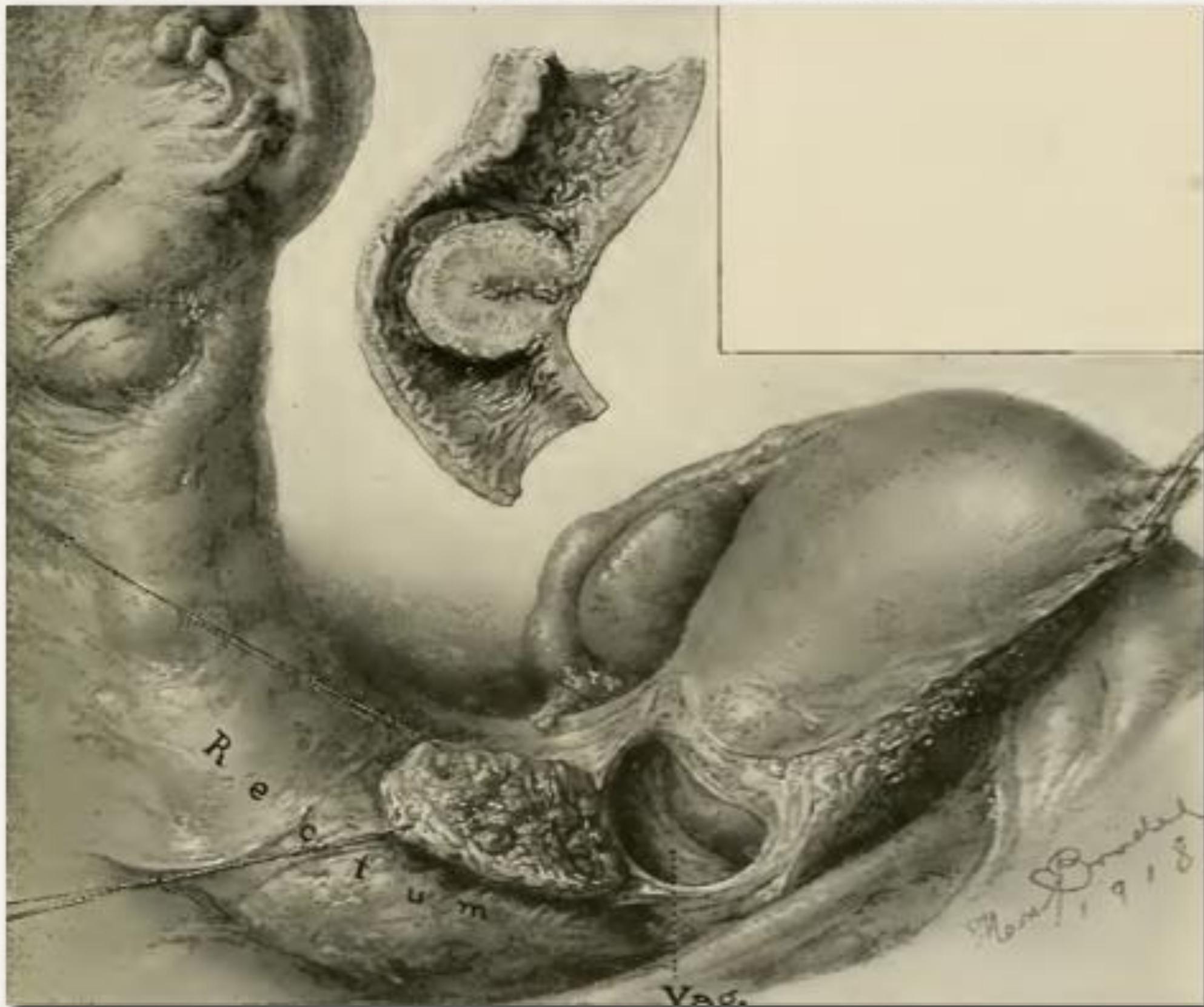
Endometriosis

Diagnosis and Treatment

Gernot Hudelist, MD, MSc

Associate Professor Obstetrics and Gynaecology
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Woman and Health Private Clinic, Vienna
Wilhelminenspital Hospital, Vienna





Diagnosis

Yes.

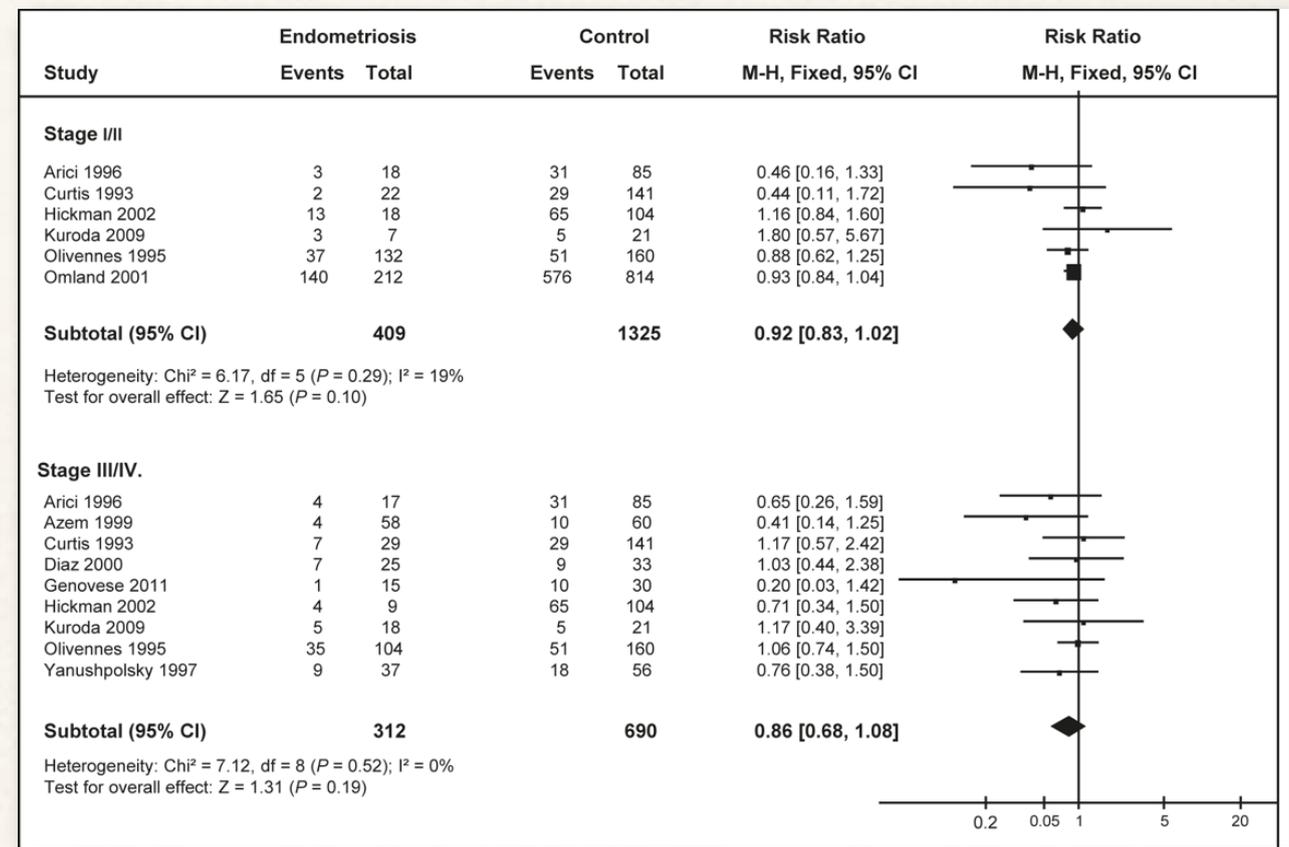
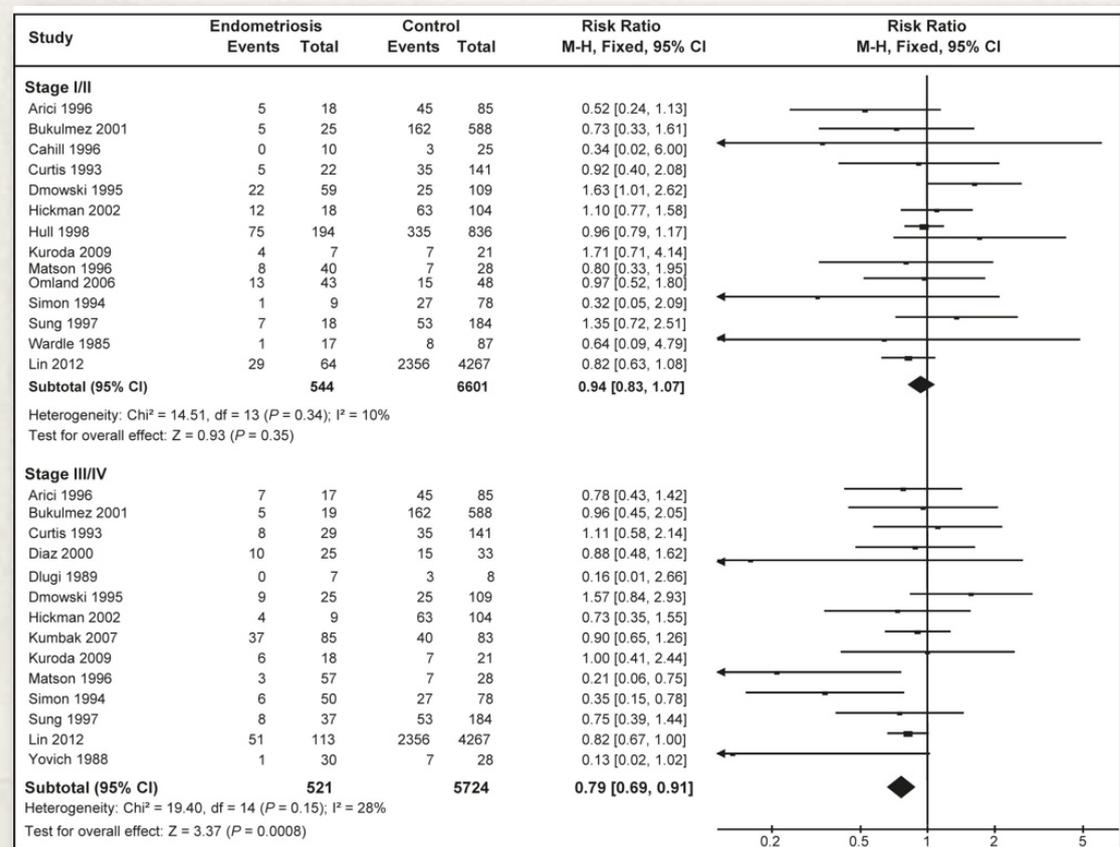
Why ?

How ?

Why ?

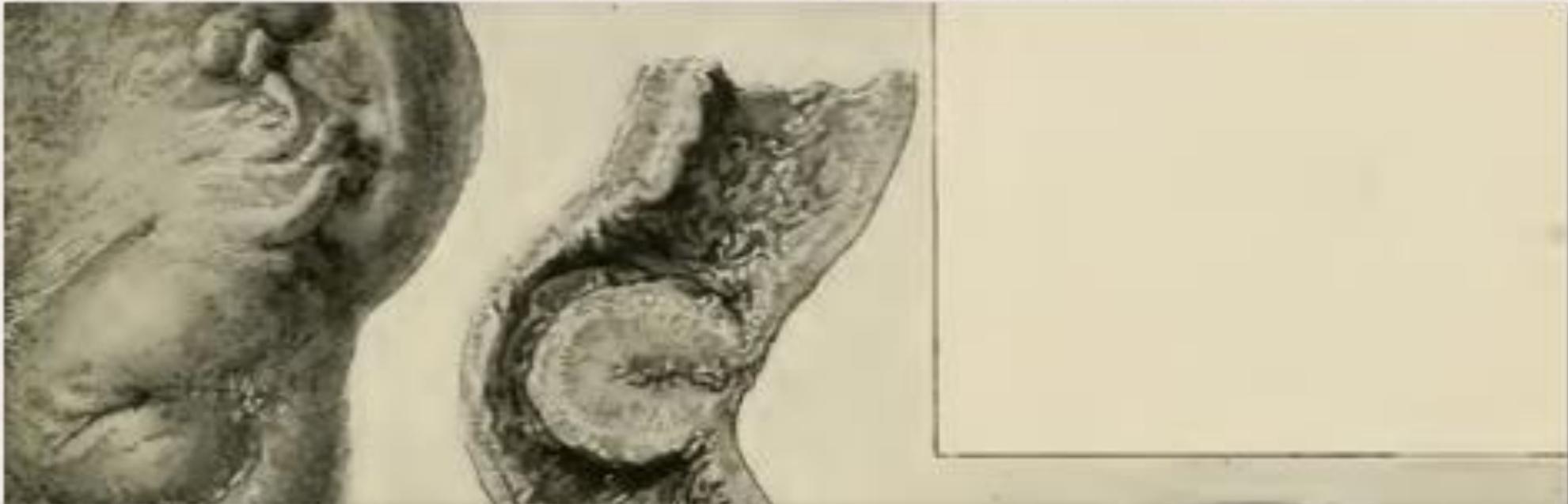
The effect of endometriosis on *in vitro* fertilisation outcome: a systematic review and meta-analysis

HM Harb,^a ID Gallos,^a J Chu,^a M Harb,^b A Coomarasamy^a



CPR
 stage I/II n.s.
 stage III/IV reduction 21%

LBR
 stage I/II n.s.
 stage III/IV reduction 14%



CONTROVERSY: DELAY IN DIAGNOSIS OF ENDOMETRIOSIS: WHY?



Diagnostic delay for endometriosis in Austria and Germany: causes and possible consequences

G. Hudelist^{1,2,†}, N. Fritzer^{3,*†}, A. Thomas⁴, C. Niehues⁵, P. Oppelt^{6,2}, D. Haas^{6,2}, A. Tammaa¹, and H. Salzer¹

¹Department of Obstetrics and Gynaecology/Endometriosis and Pelvic Pain Clinic, Wilhelminen Hospital, Vienna, Austria ²Stiftung Endometrioseforschung, SEF, Germany, Austria, Switzerland ³Department of Clinical Psychology and Psychotherapy, Institute of Psychology, Alps-Adria University of Klagenfurt, Klagenfurt, Austria ⁴Department of Methodological Research, Institute of Psychology, Alps-Adria University of Klagenfurt, Klagenfurt, Austria ⁵Median-Klinik am Burggraben, Bad Salzuflen, Germany ⁶Department of Obstetrics and Gynaecology/Center for Endometriosis, General Hospital Linz, Linz, Austria

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Variables	Mean (years)	SD
Onset of symptoms to first medical consultation	2.3	3.7
Onset of symptoms to first gynecological consultation	2.7	3.8
Gynecological consultation to final diagnosis	7.7	7.0
Onset of symptoms to final diagnosis	10.4	8.0

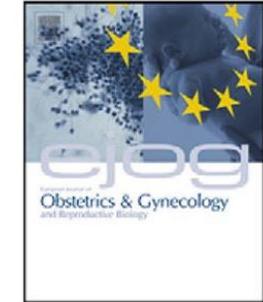
SD, standard deviation.



Contents lists available at SciVerse ScienceDirect

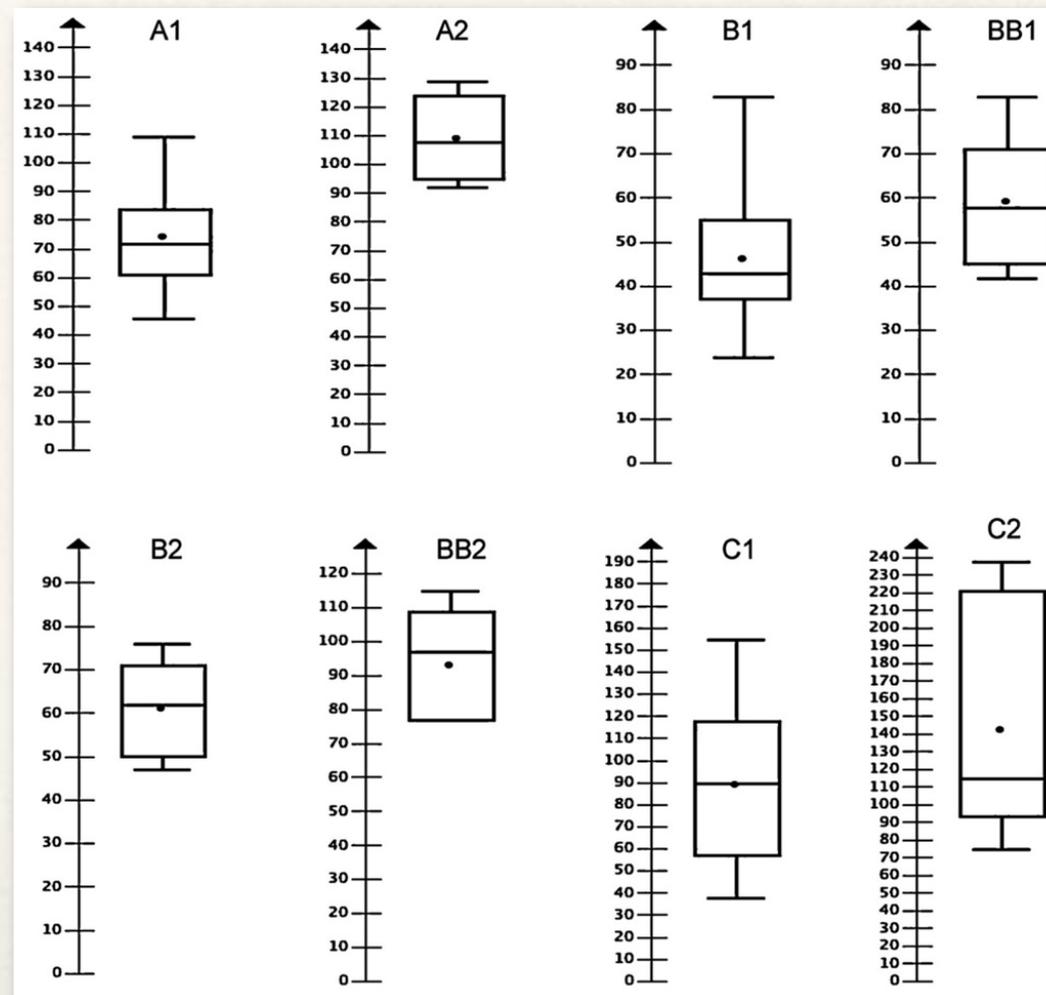
European Journal of Obstetrics & Gynecology and Reproductive Biology

journal homepage: www.elsevier.com/locate/ejogrb



Preoperative planning of surgery for deeply infiltrating endometriosis using the ENZIAN classification[☆]

Dietmar Haas^{a,b}, Radek Chvatal^a, Alwin Habelsberger^a, Wolfgang Schimetta^c, Wolfgang Wayand^d, Andreas Shamiyeh^d, Peter Oppelt^{a,b,*}

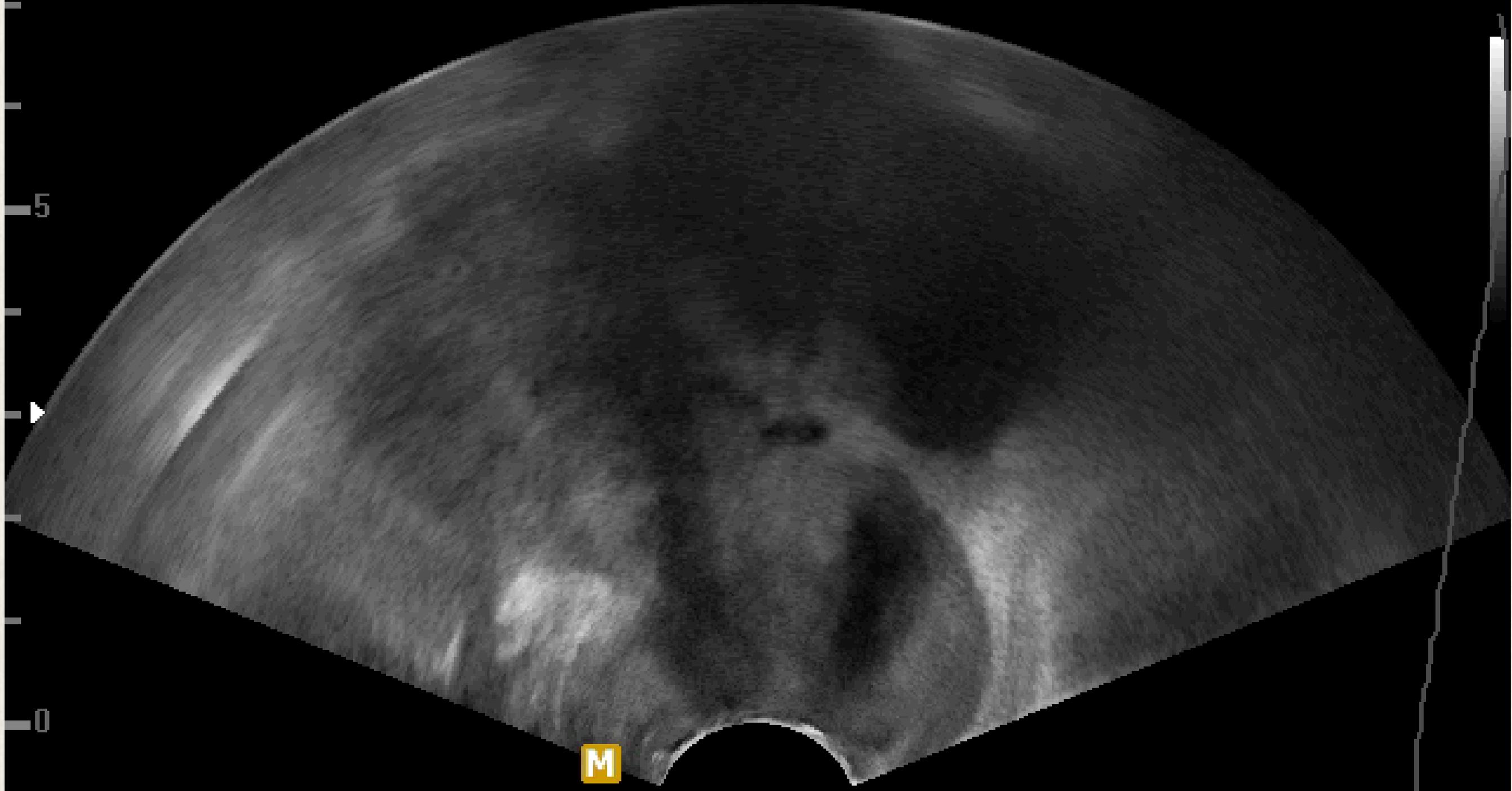


How ?

Ovary

EC4-9IS/Gynäkologie/FPS25D/7.0cm/Gen./MIO.82/TIw0.5/11-02-2014 10:25:08

[2D] G55/100dB/FA8/L90/FSI 1

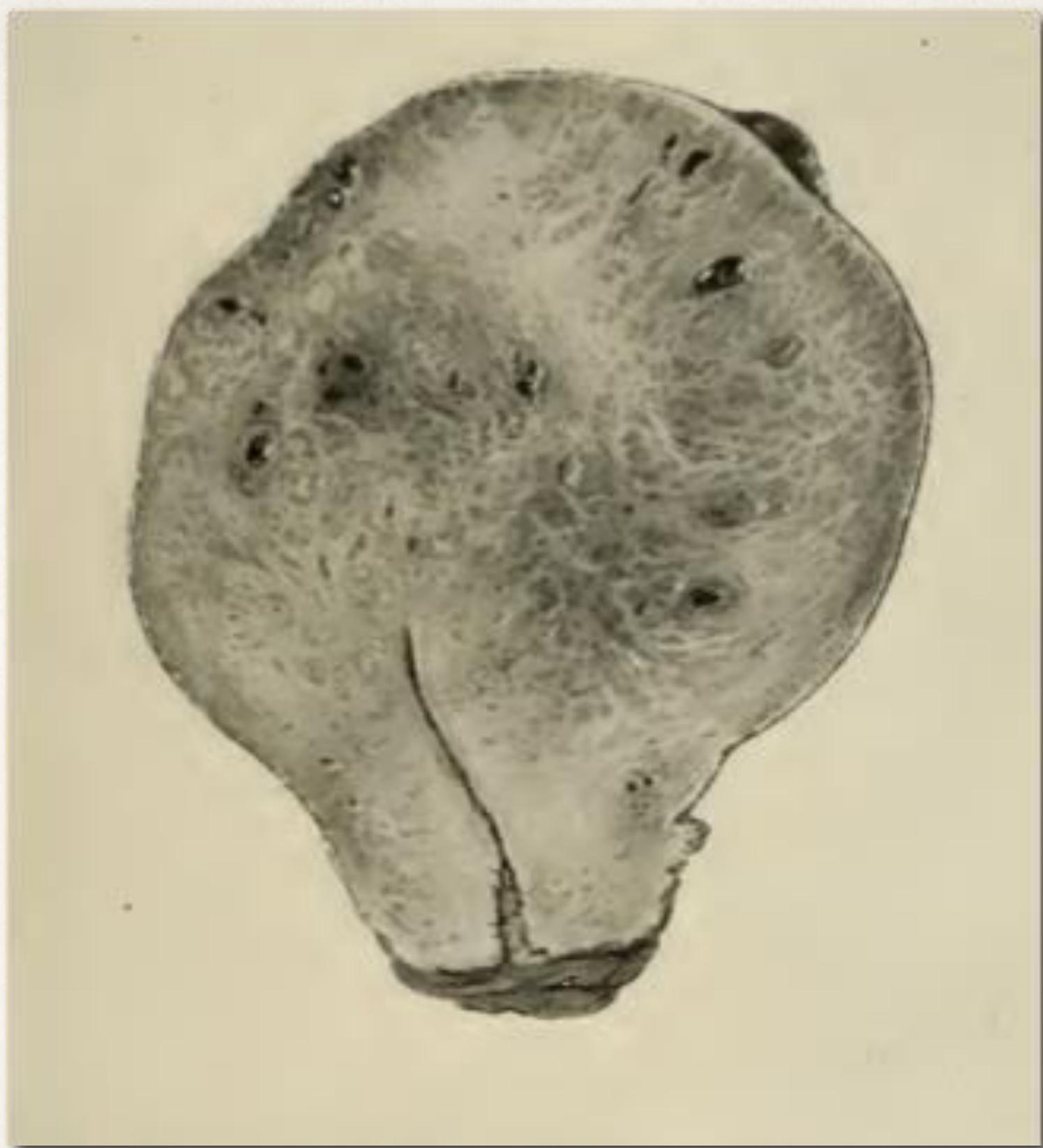


M

5

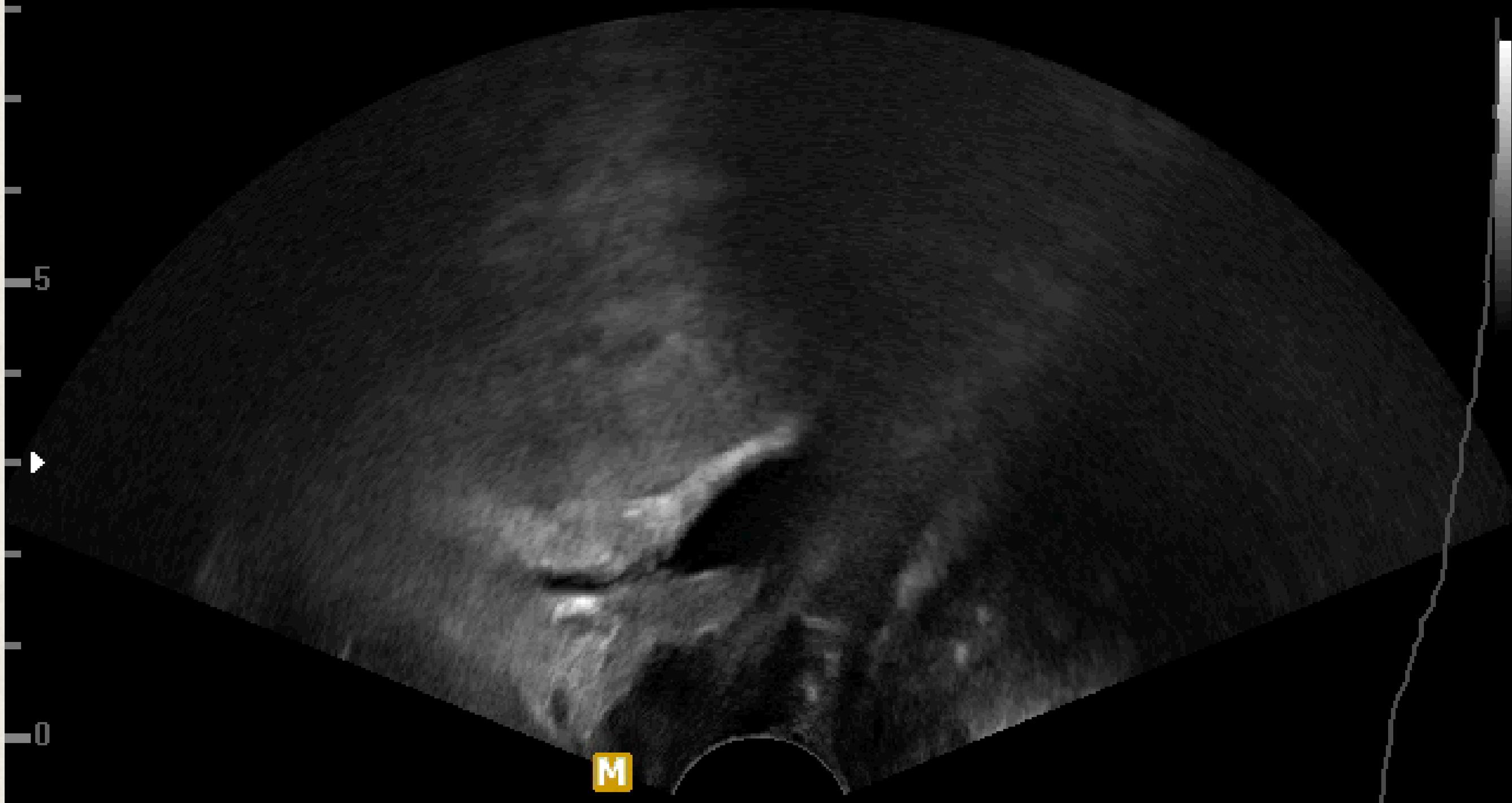
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Uterus



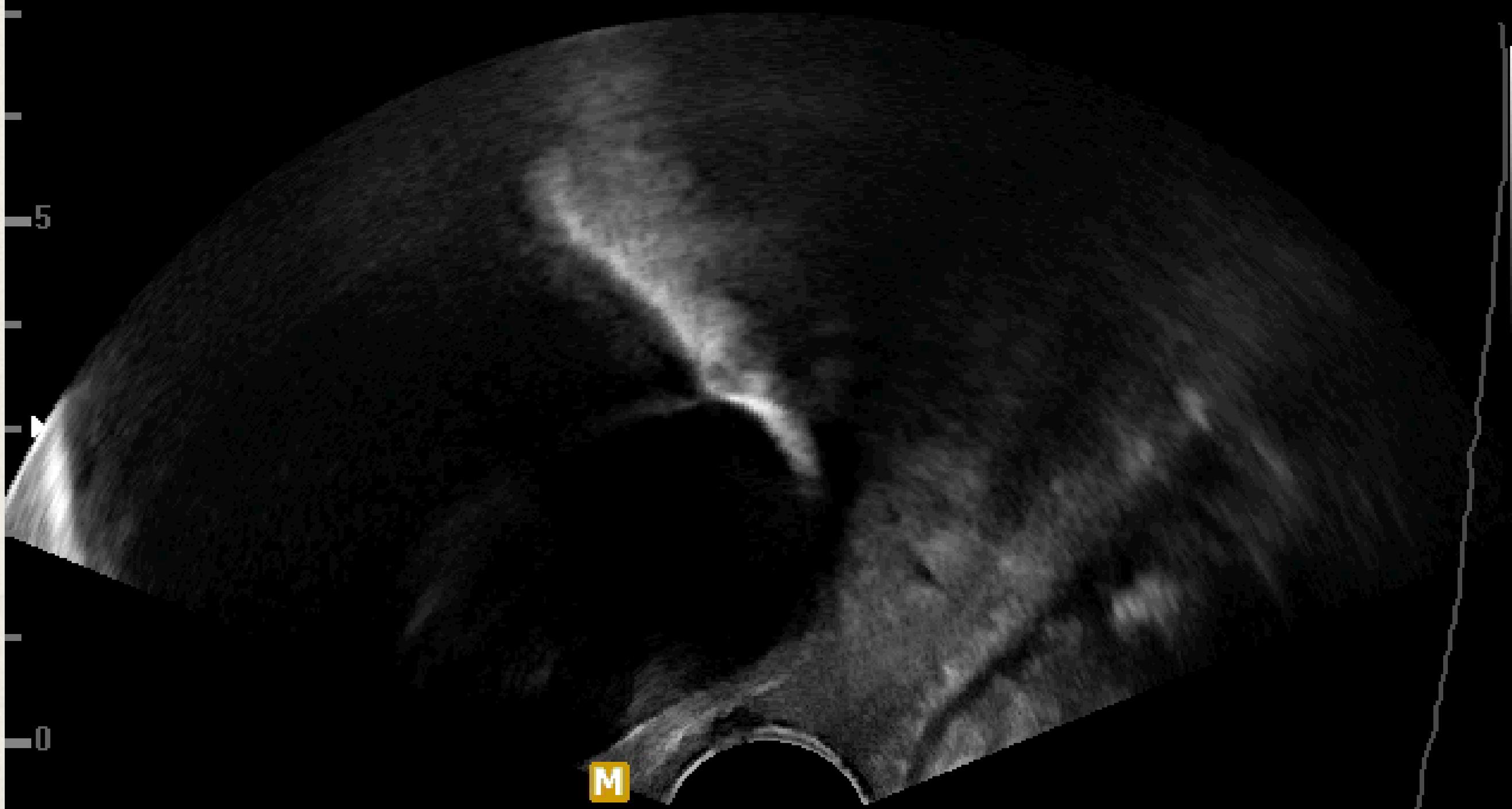
EC4-9IS / Gynäkologie / FPS23D / 8.0cm / Gen. / MIO.85 / TIw0.5 / 02-08-2012 07:17:05

[2D] G50 / 100dB / FA8 / L90 / FSI 1



EC4-9IS/Gynäkologie/FPS25D/7.0cm/Gen./MIO.82/TIw0.5/19-08-2014 06:34:24

[2D] G53/100dB/FA8/L90/FSI 1



M



Diagnostic accuracy of transvaginal sonography for the diagnosis of adenomyosis: systematic review and metaanalysis

Susanna M. Meredith, MD; Luis Sanchez-Ramos, MD; Andrew M. Kaunitz, MD

OBJECTIVE: The purpose of this study was to critically appraise the diagnostic accuracy of transvaginal sonography for diagnosing adenomyosis.

STUDY DESIGN: Computerized databases were used to identify relevant reports published between 1966 and 2007 reporting data on the accuracy of transvaginal sonography for diagnosing adenomyosis in women having hysterectomy. The presence or absence of adenomyosis was confirmed by histopathologic analysis of hysterectomy specimens. The total analysis included 14 trials with 189 aggregate participants. Two authors independently assessed methodological quality and constructed tables for the assessment of diagnostic measures.

RESULTS: Transvaginal ultrasound predicted adenomyosis with a likelihood ratio of 4.67 (95% confidence interval [CI], 3.13-6.17). The overall prevalence of adenomyosis was 27.9% (95% CI, 25.5-30.3). The probability of adenomyosis with an abnormal transvaginal ultrasound was 66.2% (95% CI, 61.6- 70.6). The probability of adenomyosis with a normal transvaginal ultrasound was 9.1% (95% CI, 7.3-11.1).

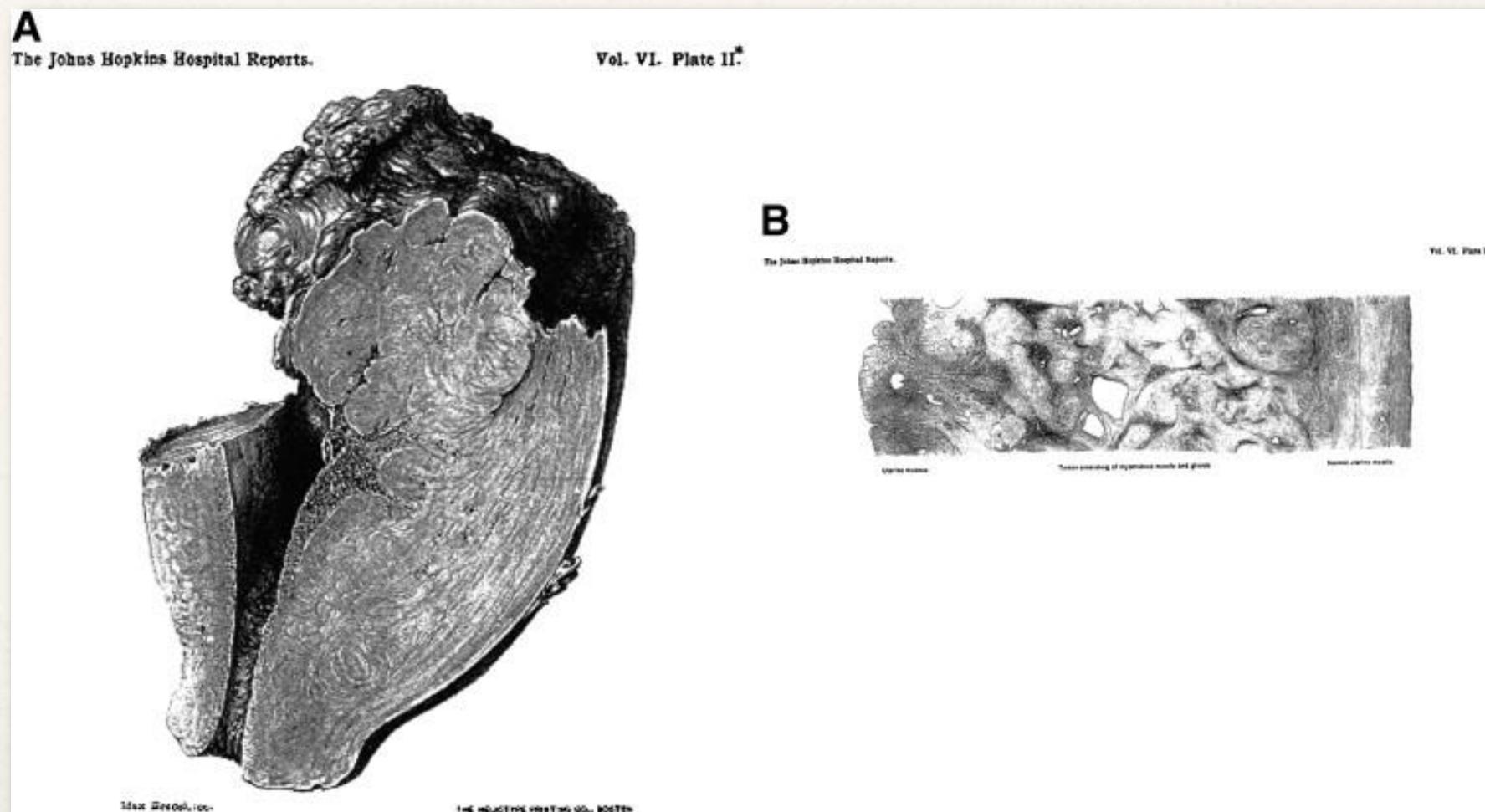
CONCLUSION: Transvaginal sonography appears to be an accurate diagnostic test for adenomyosis.

ultrasound

Cite this article as: Meredith SM, Sanchez-Ramos L, Kaunitz AM. Diagnostic accuracy of transvaginal sonography for the diagnosis of adenomyosis: systematic review and metaanalysis. *Am J Obstet Gynecol* 2009;201:107.e1-6.

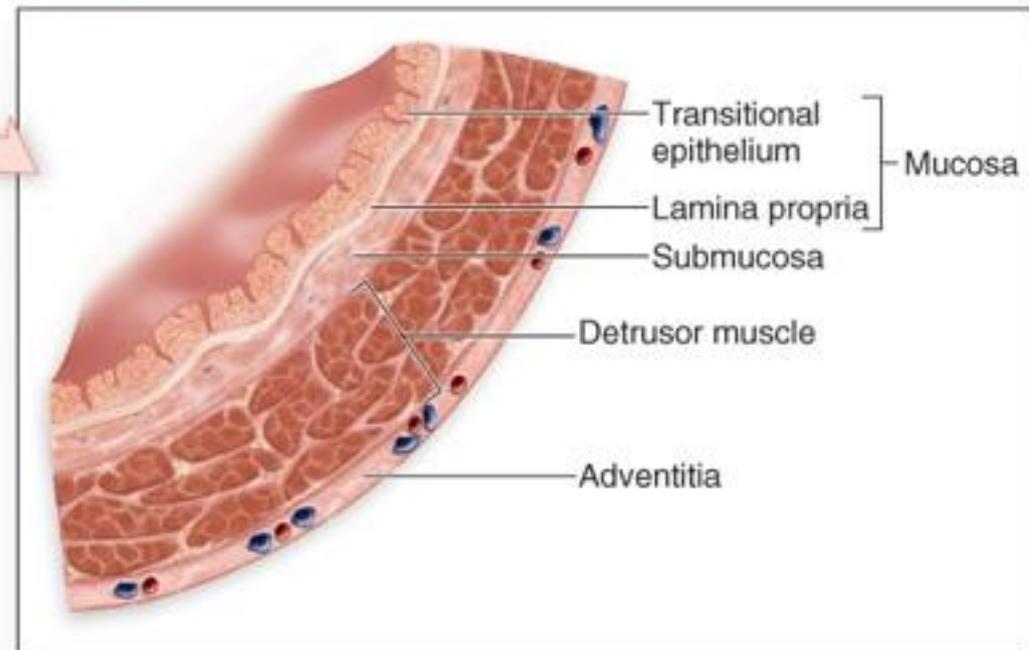
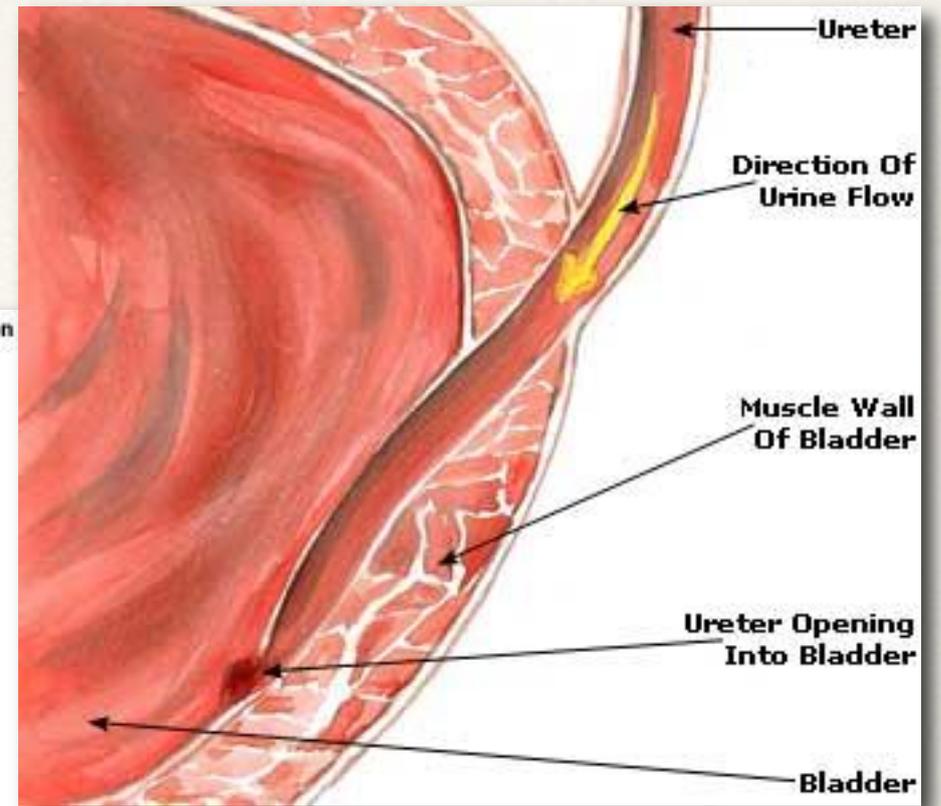
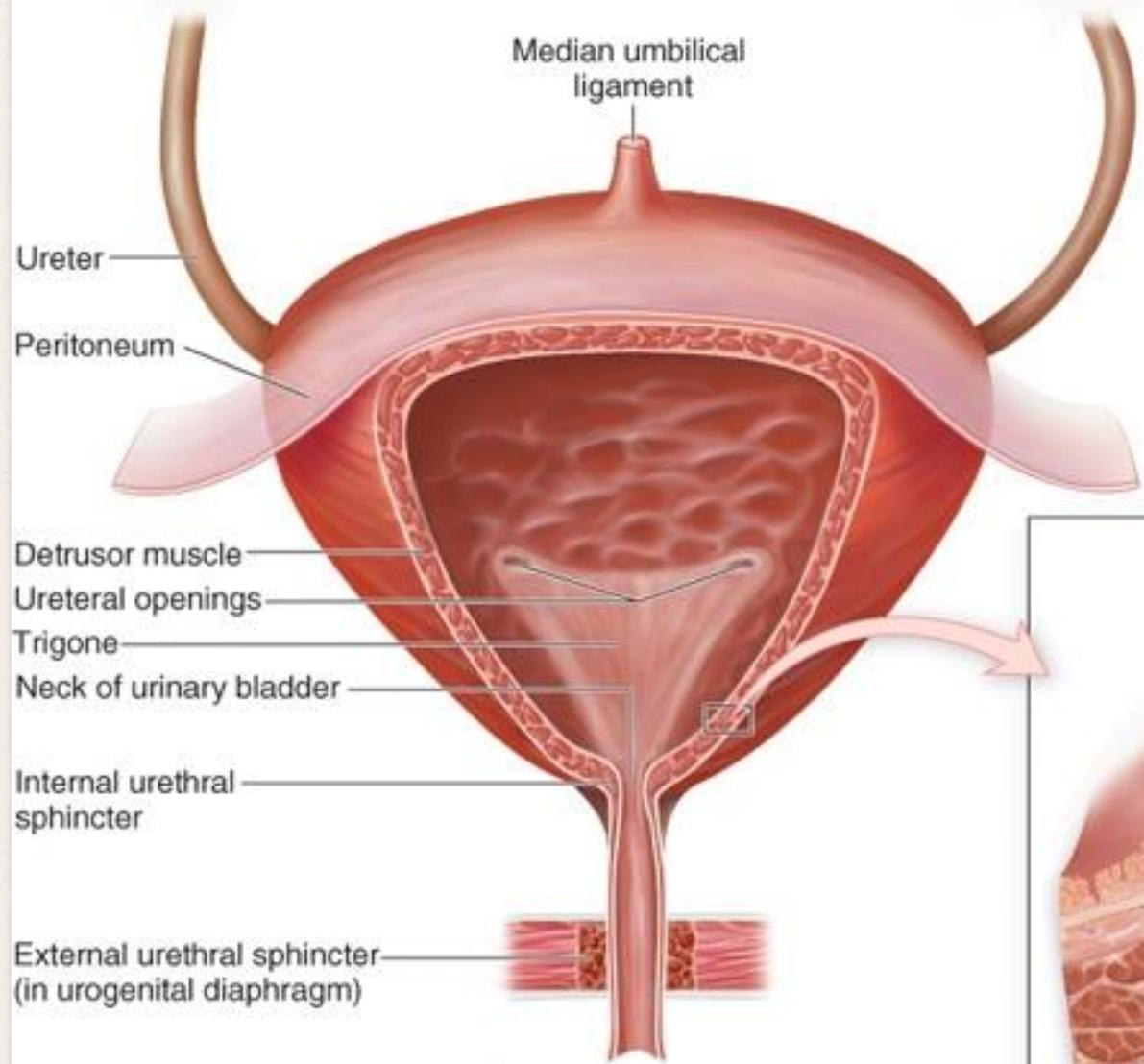
Uterine adenomyosis and *in vitro* fertilization outcome: a systematic review and meta-analysis

Paolo Vercellini^{1,2,*}, Dario Consonni³, Dhouha Dridi¹, Benedetta Bracco¹,
Maria Pina Frattaruolo^{1,2}, and Edgardo Somigliana^{2,4}



Bladder

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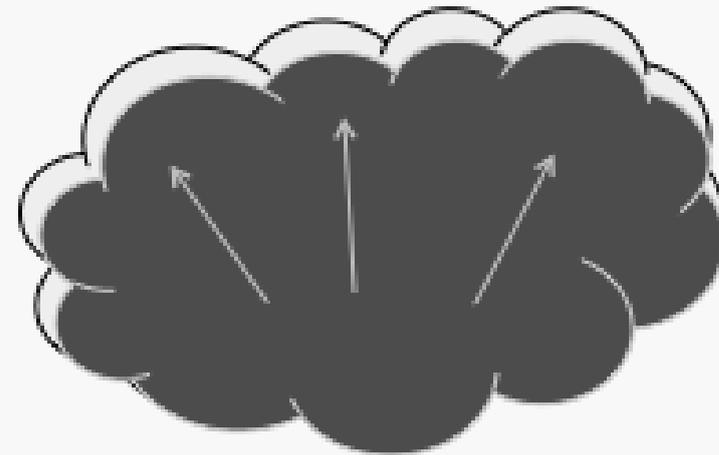


(a)

Blasenwand

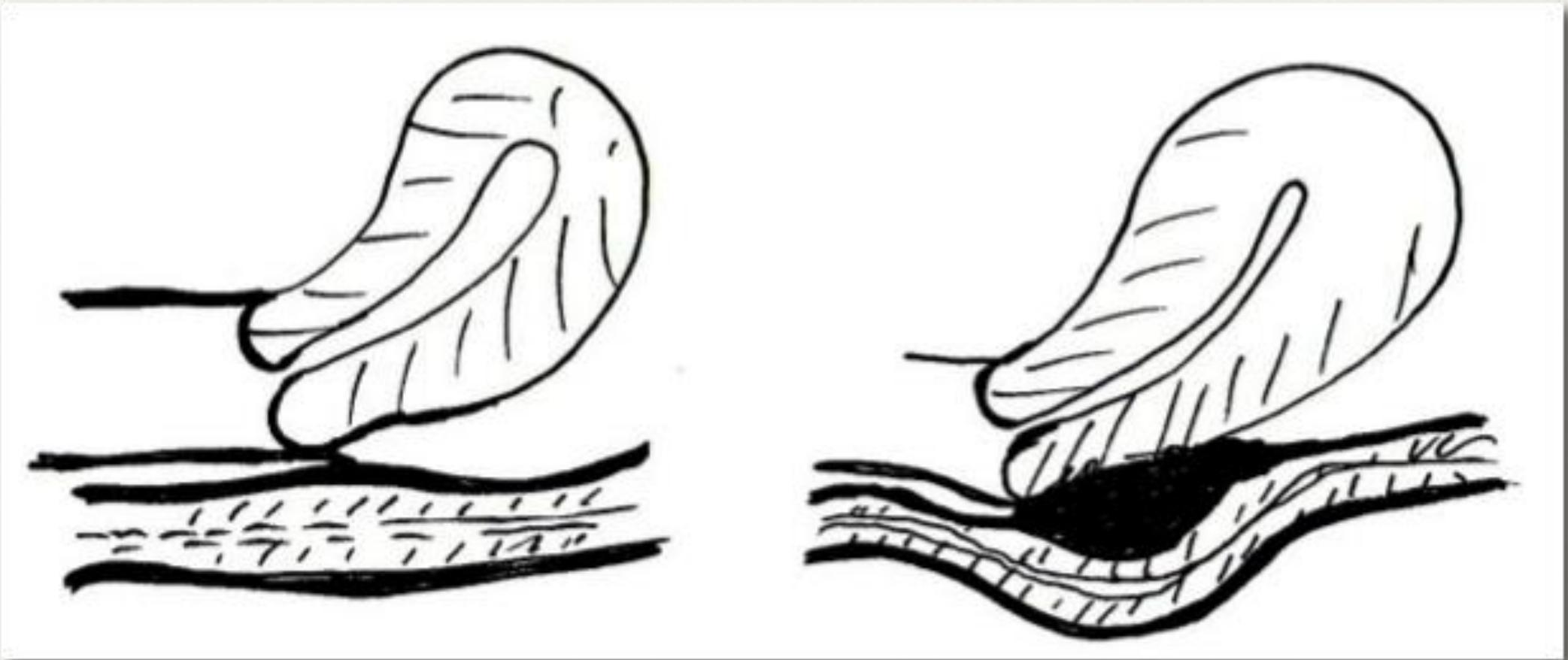


Endometriose





Bowel



J. Keckstein



Diagnostic accuracy of transvaginal ultrasound for non-invasive diagnosis of bowel endometriosis: systematic review and meta-analysis

G. HUDELIST*†, J. ENGLISH‡, A. E. THOMAS§, A. TINELLI¶, C. F. SINGER**
and J. KECKSTEIN††

*Department of Obstetrics and Gynaecology, Endometriosis and Pelvic Pain Clinic, Wilhelminen Hospital, Vienna, Austria; †SEF, Stiftung Endometrioseforschung; ‡Department of Obstetrics and Gynaecology, University of Brighton Medical School, Brighton, UK; §Department of Methodological Research and Statistics, Institute of Psychology, Alpe Adria University Klagenfurt, Klagenfurt, Austria; ¶Department of Obstetrics and Gynaecology, Lecce Hospital, Lecce, Italy; **Department of Obstetrics and Gynaecology, University of Vienna, Vienna, Austria; ††Department of Obstetrics and Gynaecology, Center for Endometriosis, Villach Hospital, Villach, Austria

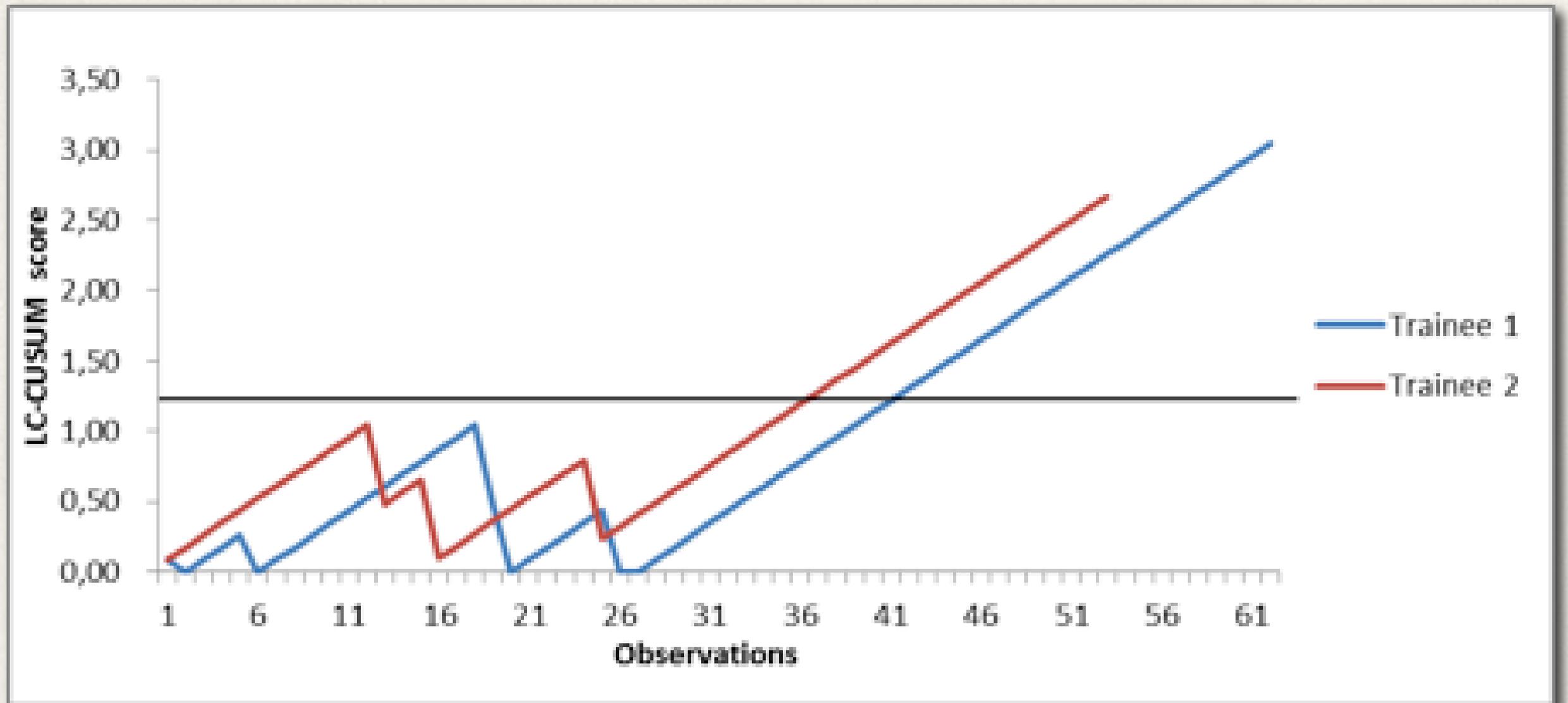
KEYWORDS: deep infiltrating endometriosis; presurgical diagnosis; transvaginal ultrasound

Hudelist et al. UOG 2011

Table 3 Overall analysis of all studies included in the final analysis using a random-effects model to perform pooled estimates of variables

Variable	Estimate (95% CI)
Sensitivity (%)	91 (88.1–93.5)
Specificity (%)	98 (96.7–99.0)
LR+	30.36 (15.457–59.626)
DOR	394.3 (116.3–1336.0)
Prevalence (%)	47 (36.7–57.3)
PPV (%)	98 (96.7–99.6)
NPV (%)	95 (92.1–97.7)

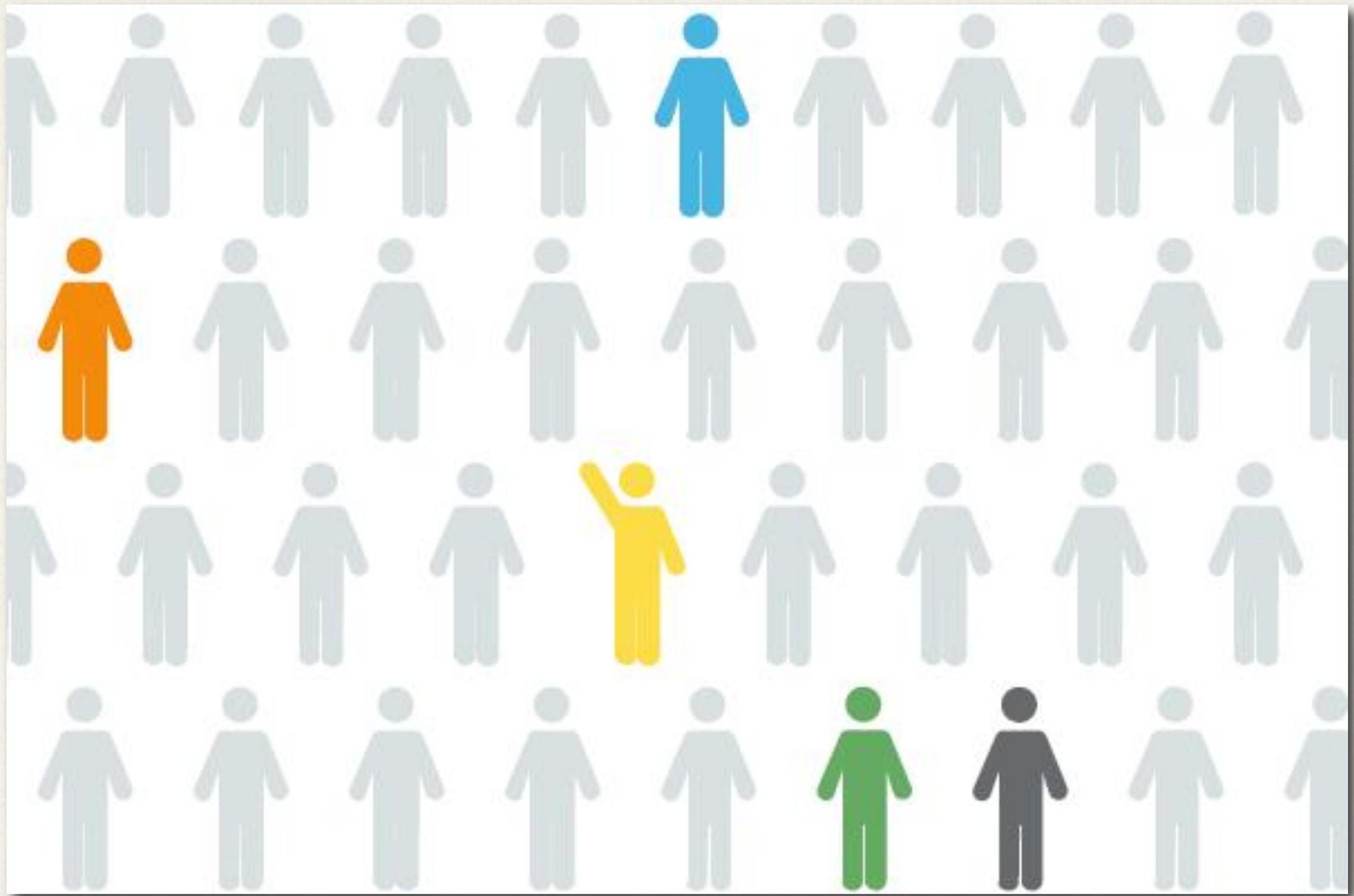
DOR, diagnostic odds ratio (values not adjusted); LR+, positive likelihood ratio (with continuity correction for studies with null-cells); LR-, negative likelihood ratio; NPV, negative predictive value; PPV, positive predictive value.



Treatment

Why?

How?



Medical

**...evidently, no optimal drug for
endometriosis yet exists.....**

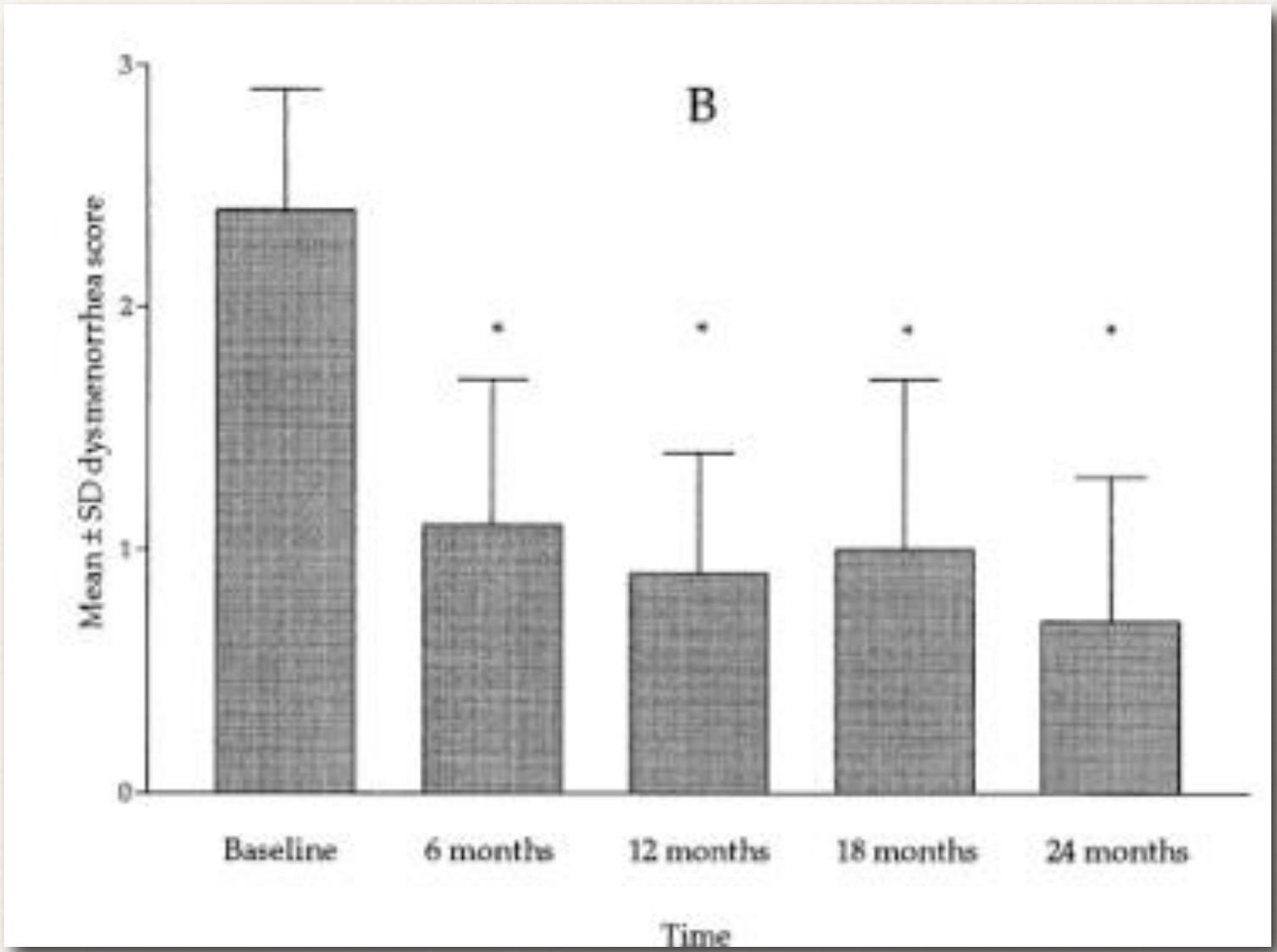
Paolo Vercellini 2012

**Oral contraceptives for pain associated with endometriosis
(Review)**

Davis LJ, Kennedy SS, Moore J, Prentice A



**THE COCHRANE
COLLABORATION®**



Surgical

Bowel resection for deep endometriosis: a systematic review

C De Cicco,^{a,b} R Corona,^a R Schonman,^a K Mailova,^a A Ussia,^c PR Koninckx^{a,b}

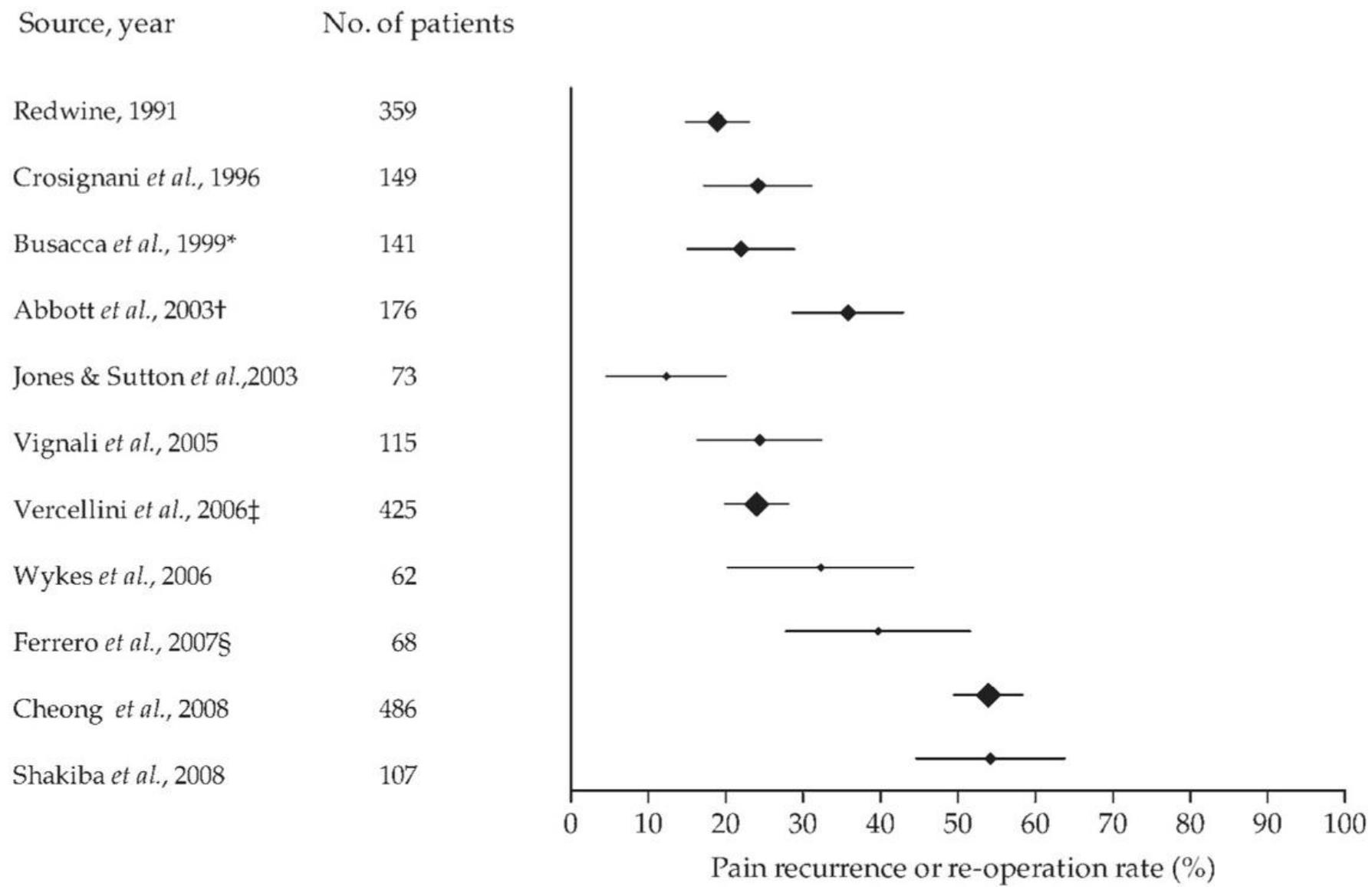
Reference	No. patients	No. complications	Major complications					Minor complications				
			Leak	Fistula	Haemorrhage	Infection	Obstruction/ stricture	Other	Bladder dysfunction	Bowel dysfunction	Other	
Musulman et al. ²⁰	49	7	2		1		1		3	NA	NA	NA
Mayhew et al. ²¹	27	13	3				1	5	4	NA	NA	NA
Ferreira et al. ²¹	92	7		2			2	3		NA	NA	NA
Ruffo et al. ²²	436	186	9	14	9		3	16	6	71	15	3
Tarjanne et al. ²³	54	2		1	1					NA	NA	NA
De Nardi et al. ²⁴	10	2								2		
Fossi et al. ²⁵	31	8	1	1						2		4
Fardo et al. ²⁶	15	5	NA	NA	NA		NA	NA	NA	NA	NA	NA
Mangler et al. ²⁷	48	5					1			1	1	2
Ferrero et al. ²⁸	46	17	1	1	5		1	3	1	2		3
Ghezzi et al. ²⁹	33	21			1				1	3	16	
Brouwer et al. ³⁰	137	23	2		3		2	2		2	12	
Zanetti	48	12	NA	NA	NA		NA	NA	NA	NA	NA	NA
Dallenbach et al. ³¹												
Seacchioli et al. ³²	22	7	1		1					5		
Darai et al. ³³	71	26		6	11		3					6
Lynn et al. ³⁴	7	4						1		1		2
Keckstein and Wiesinger ³⁵	202	15	6	0	1		1	6	0	NA	NA	NA
Abrão et al. ³⁶	8	0										
Ribeiro et al. ³⁷	115	12		2			1		1	3		5
Muller et al. ³⁸	48	18	1	1	1			2	1	1		10
Campagnolo et al. ³⁹	7	1								1		
Fleisch et al. ⁴⁰	23	3	1		2							
Fedele et al. ⁴¹	30	6			2			1		3		
Jatan et al. ⁴²	14	4			1			2		1		
Evallari et al. ⁴³	50	2	2									
Dunpre et al. ⁴⁴	18	5	NA	NA	NA		NA	NA	NA	NA	NA	NA
Redwine and Vergha ⁴⁵	7	0										
Pizzover et al. ⁴⁶	34	2	2									
Vermyck et al. ⁴⁷	6	1		1								
Littach et al. ⁴⁸	29	7		1	1		1	2	1	1		

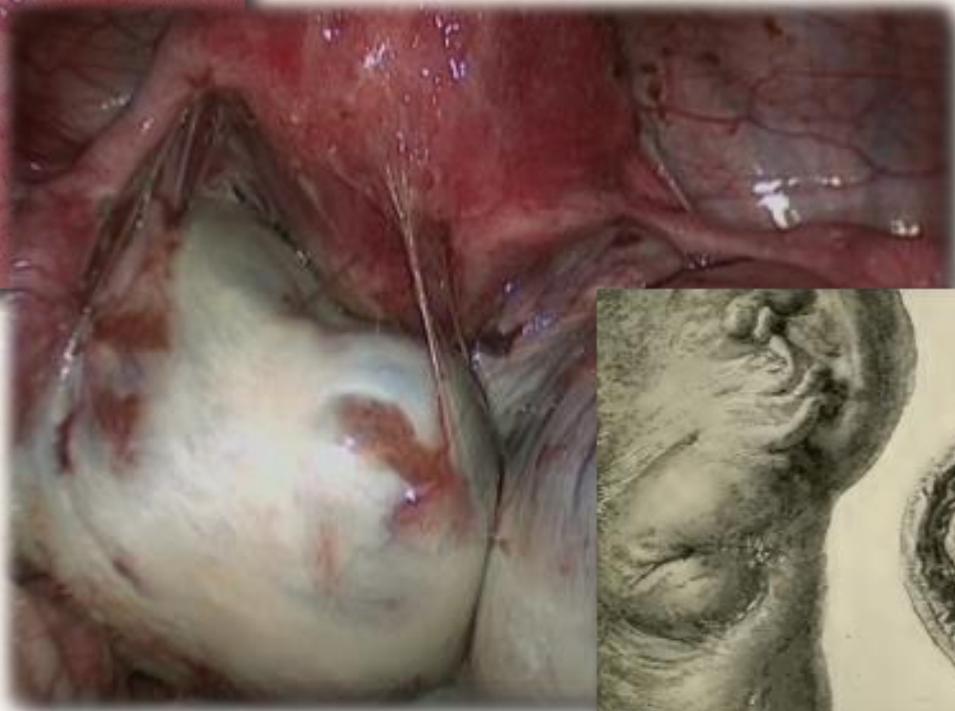
NA, specific data not available. Empty cells, no complications.

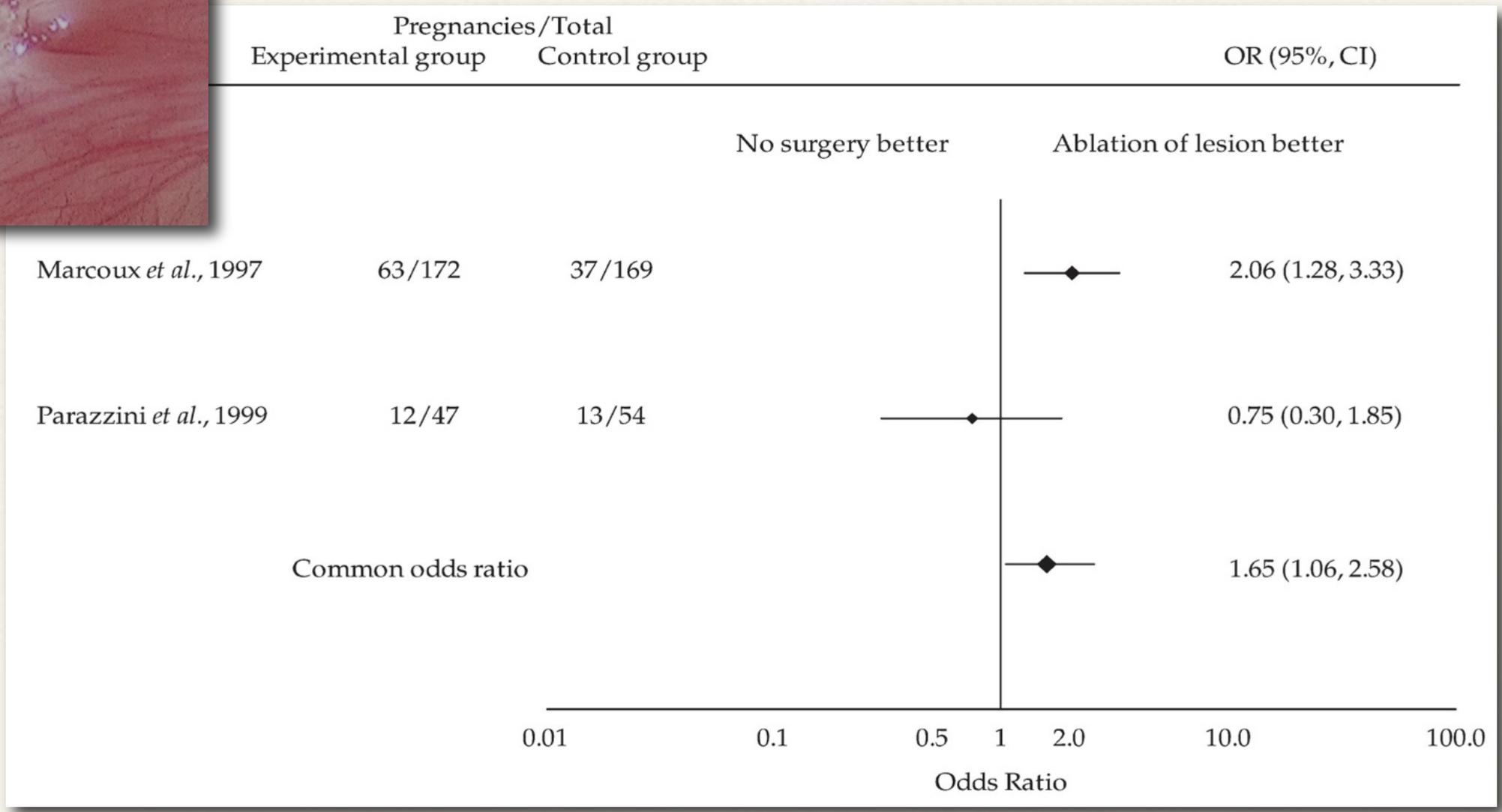
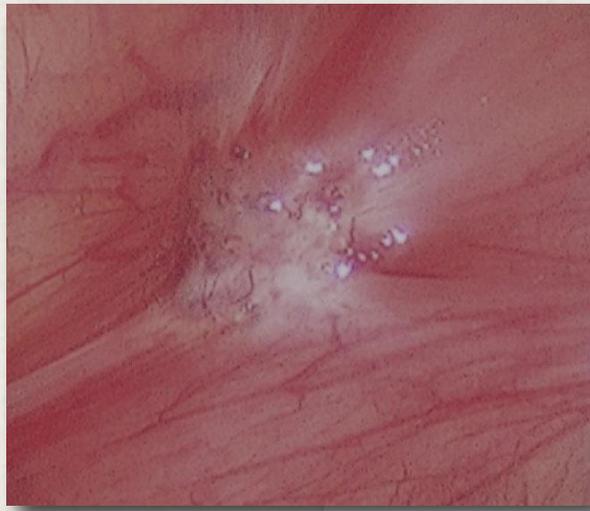
Bowel resection for deep endometriosis: a systematic review

C De Cicco,^{a,b} R Corona,^a R Schonman,^a K Mailova,^a A Ussia,^c PR Koninckx^{a,b}

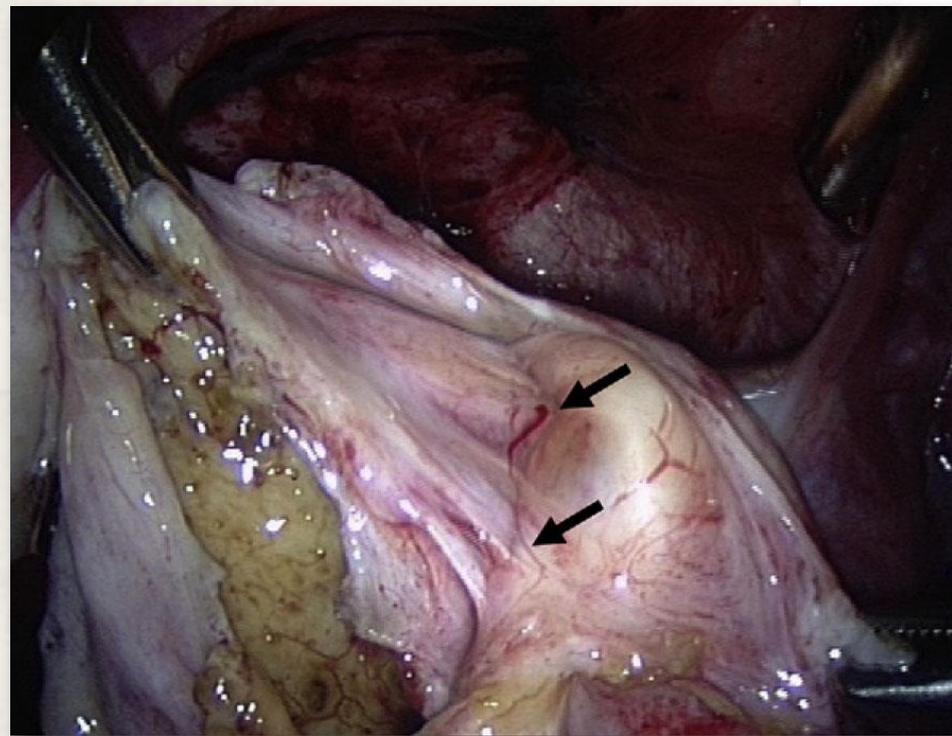
	Complete relief	Improvement	Unchanged	Worsened
Overall pain	81.5% (111/135)	17% (19/112)	2.7% (3/112)	0% (0/112)
Dysmenorrhoea	54.9% (45/82)	37.8% (31/82)	7.3% (6/82)	0% (0/79)
Deep dyspareunia	62% (62/100)	33.3% (25/75)	8% (6/75)	2.7% (2/75)
Chronic pain	31.3% (5/16)	43.8% (7/16)	25% (4/16)	0% (0/16)
Dyschesia	46.3% (19/41)	51.2% (21/41)	9.8% (4/41)	4.9% (2/41)





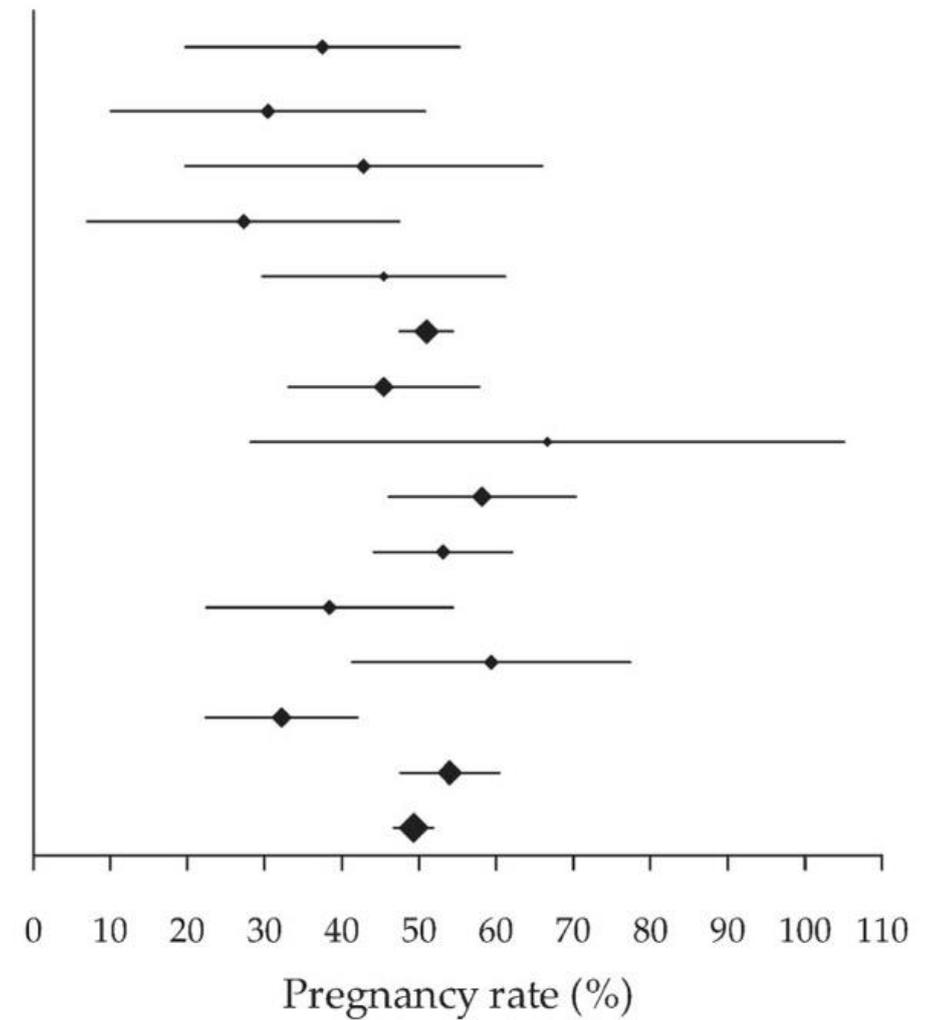


NNT = 12; 8.6%

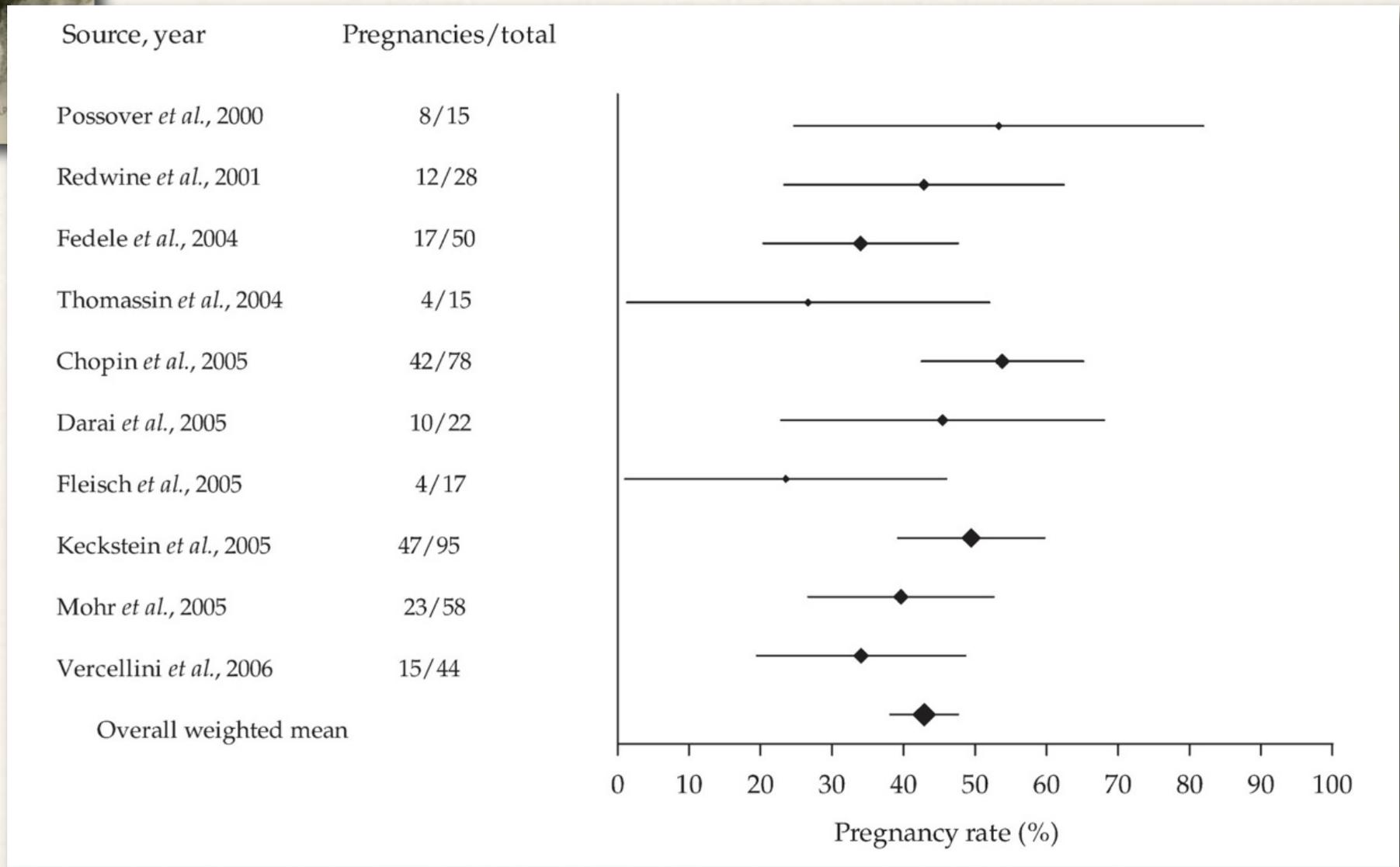


Source, year Pregnancies/Total

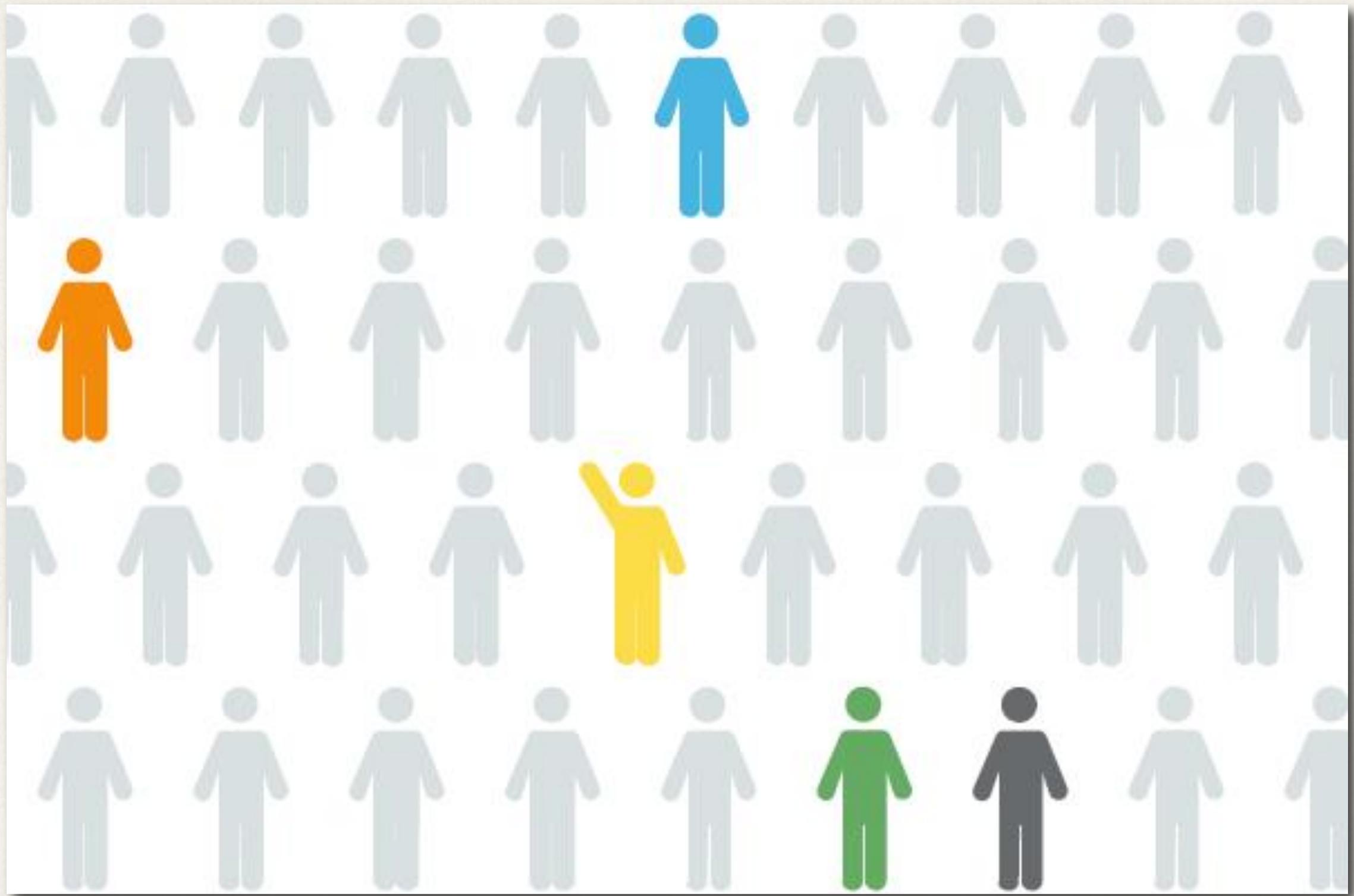
Daniell <i>et al.</i> , 1991	12/32
Marrs <i>et al.</i> , 1991	7/23
Bateman <i>et al.</i> , 1994	9/21
Crosignani <i>et al.</i> , 1996	6/22
Montanino <i>et al.</i> , 1996	5/11
Donnez <i>et al.</i> , 1996	415/814
Sutton <i>et al.</i> , 1997	30/66
et al., 1998	6/9
acca <i>et al.</i> , 1999	39/67
ngos <i>et al.</i> , 1999	17/32
s & Sutton, 2002	15/39
orzi <i>et al.</i> , 2004	19/32
ele <i>et al.</i> , 2006	29/90
cellini <i>et al.</i> , 2006a	128/237
Overall weighted mean	



NNT = 2.7; 61% vs. 23.4%



ART / IVF



....so in the end ?



Woman & Health

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