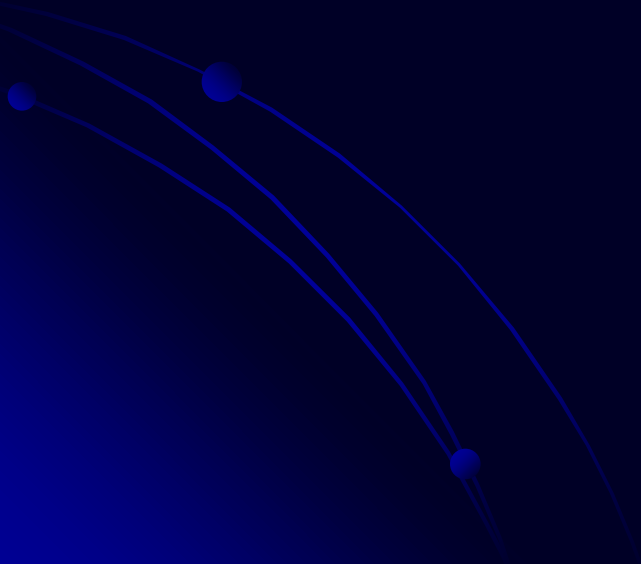


TRATAMENTO ENDOSCÓPICO DOS MIOMAS

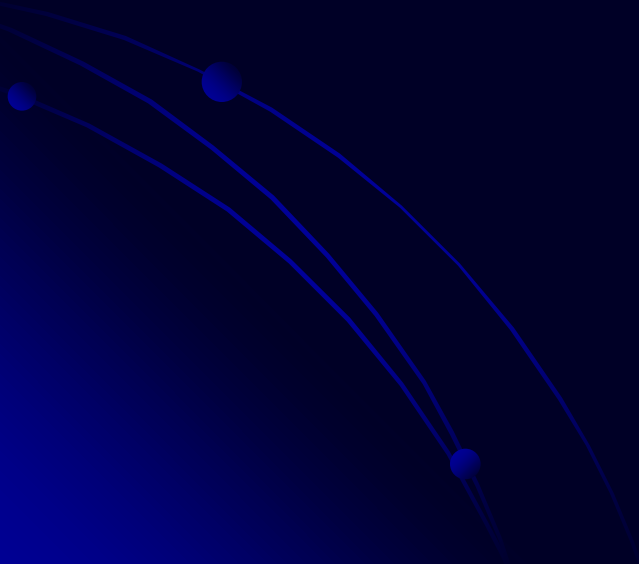
Prof Dr André Luis F Santos
UNITAU / 2009



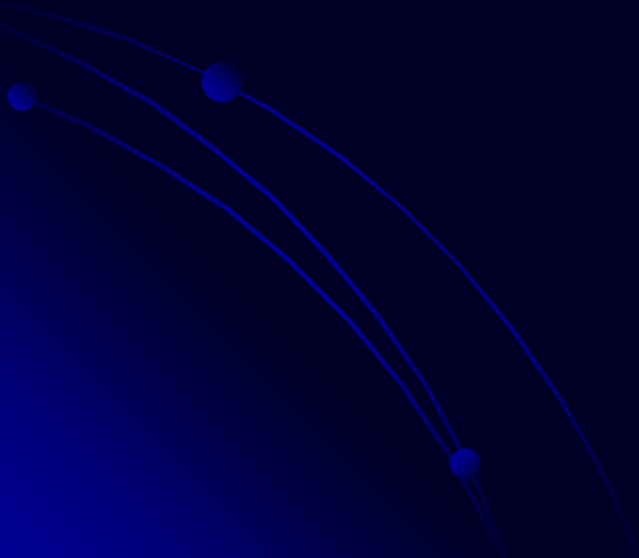
TEMAS POLÊMICOS

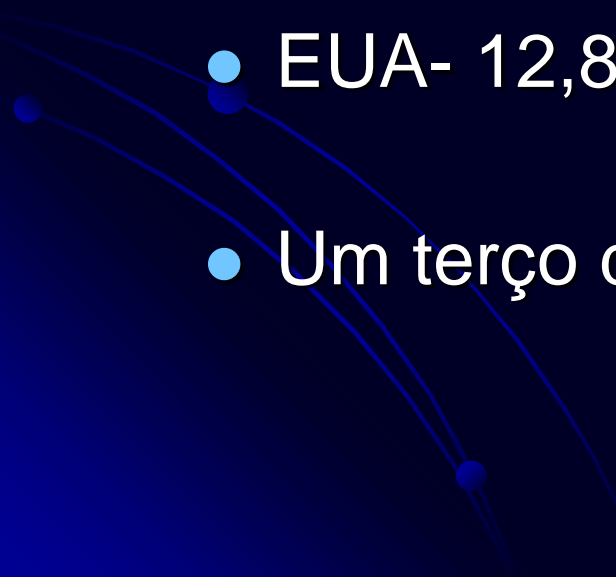


MIOMA: ACHADOS DIAGNÓSTICOS FREQUENTES E TRATAMENTOS DESNECESSÁRIOS

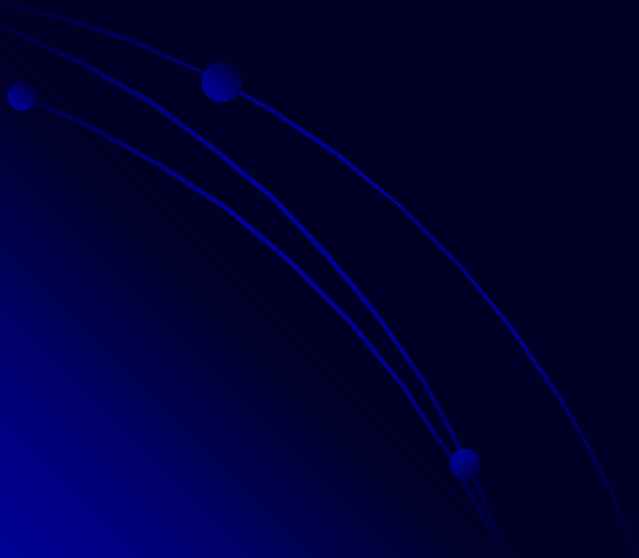



INTRODUÇÃO





- Tu pélvico mais frequente do T.G. feminino
 - 30/40% das mulheres em idade fértil
 - Sintomáticos em até 50%
 - EUA- 12,8 em 1000 mulheres/ano
 - Um terço das indicações de histerectomia
- 

EPIDEMIOLOGIA ETIOPATOGENIA



- Neoplasia benigna de células musculares lisas
 - Responsiva a hormônios ovarianos
 - Raça negra
 - História familiar
- 

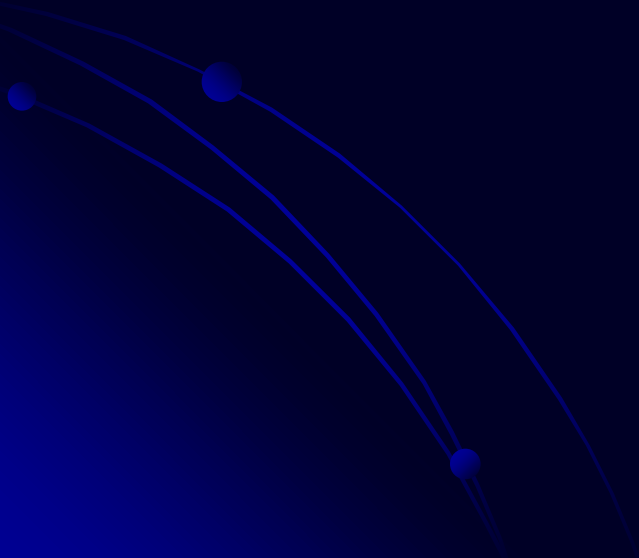
- Idade: negras- 35 a 39 anos, brancas- 40 a 44 anos
 - Paridade- risco diminui de 20-50 % se possui 1 filho.
 - Infertilidade - <3% - associação direta é rara, mais relacionada ao tu **submucoso**
- 

- Índice de massa corpórea- se alto, aumenta o risco em 2 a 3 vezes
 - Dieta- carne vermelha aumenta em 2 vezes, vegetais diminui em 50%
 - Atletismo- diminui o risco
- 

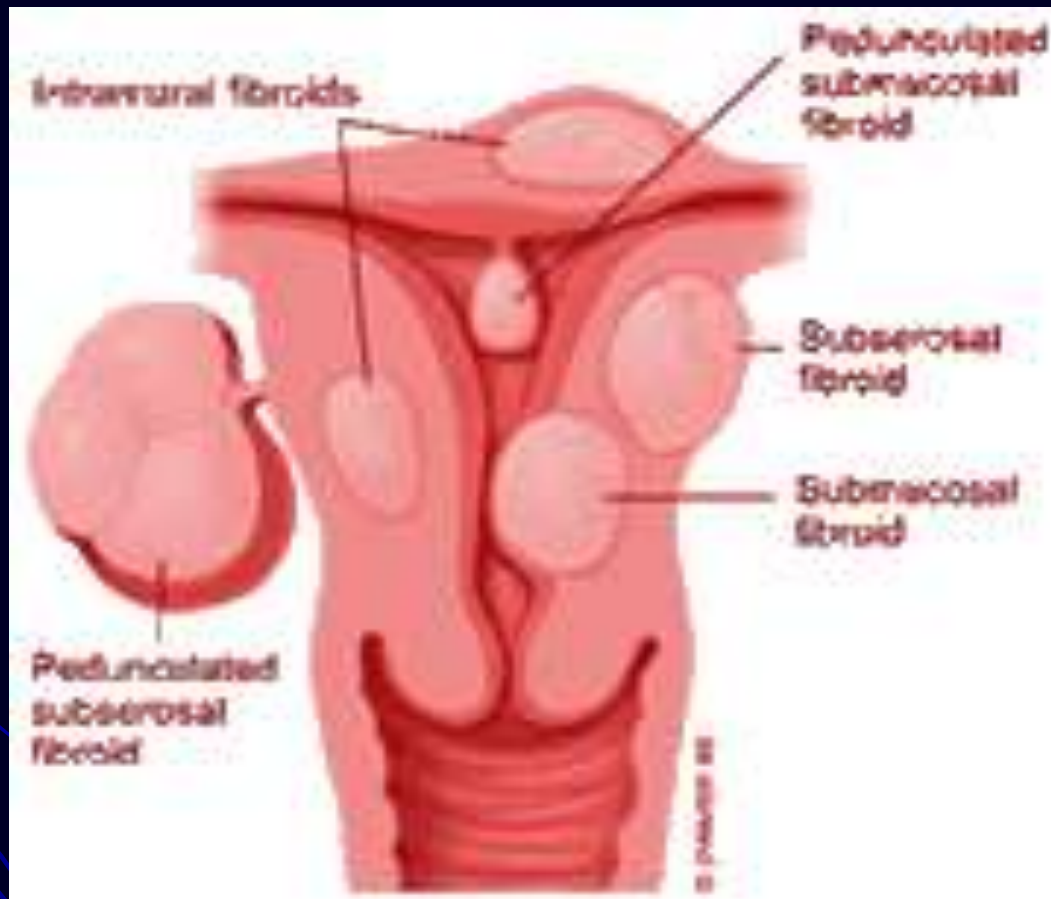
- Tabagismo- diminui o risco em 20 a 50%, inativação hepática dos estrogênios
- Doenças crônicas- DM e HAS aumenta o risco

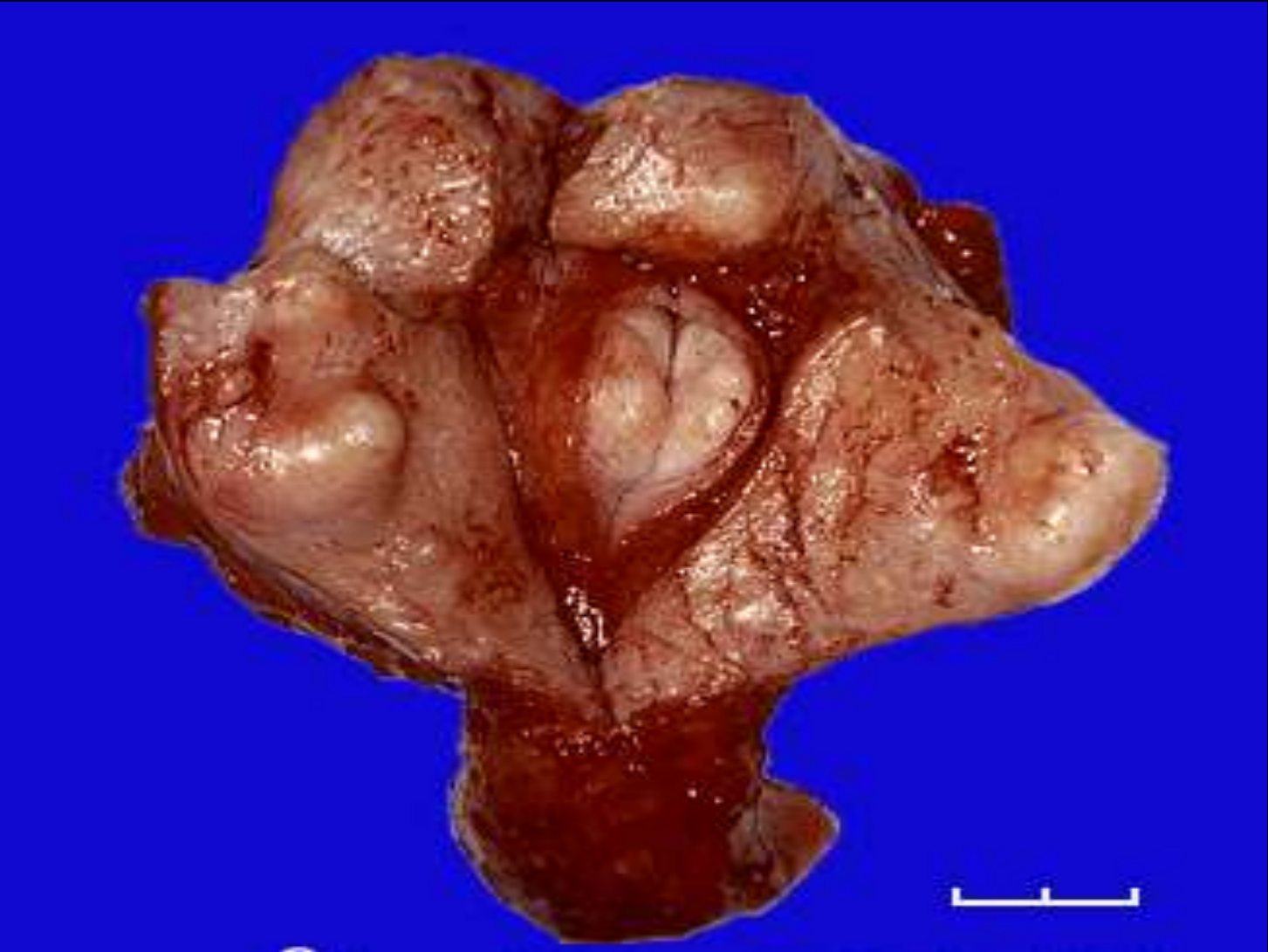


CLASSIFICAÇÃO

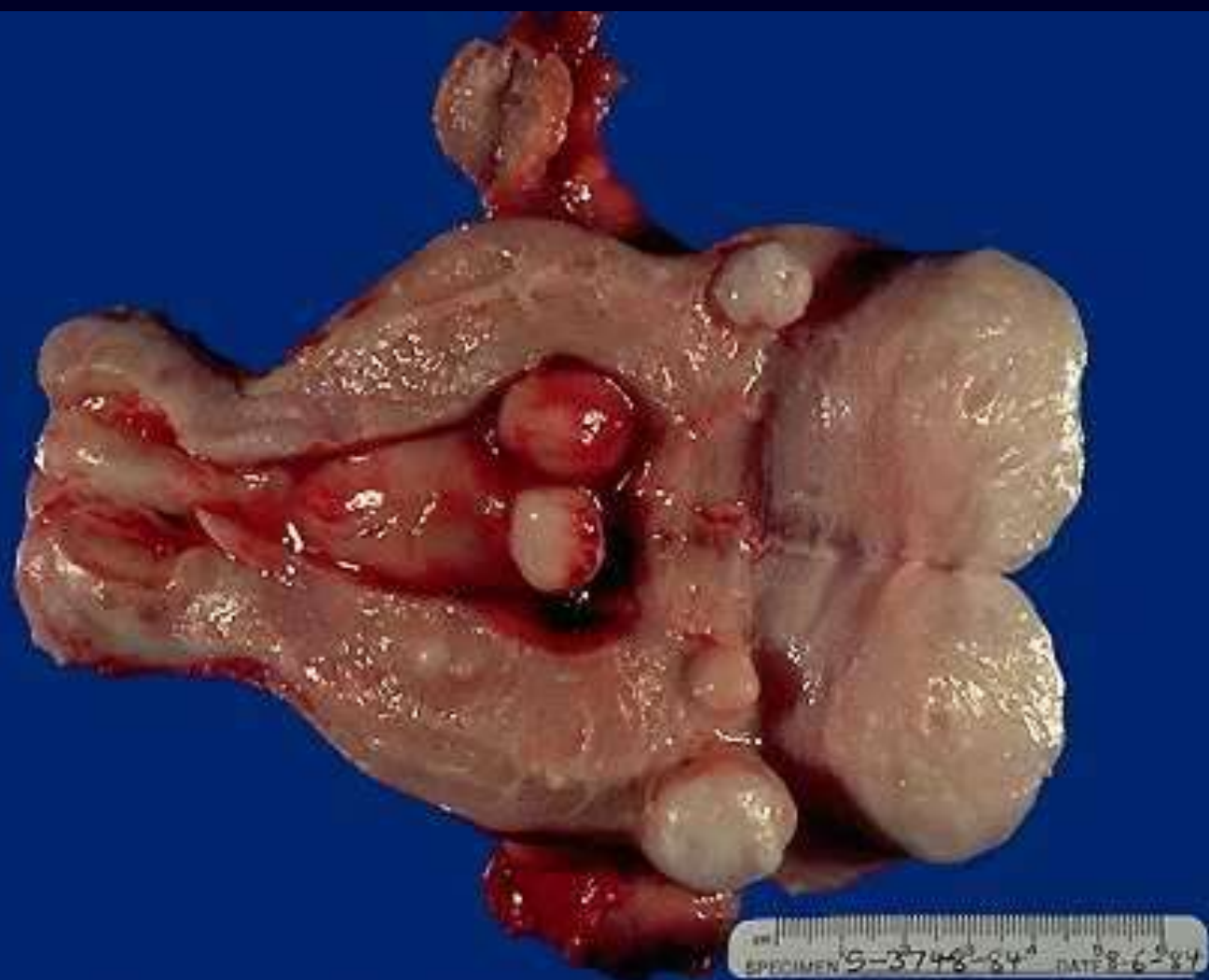


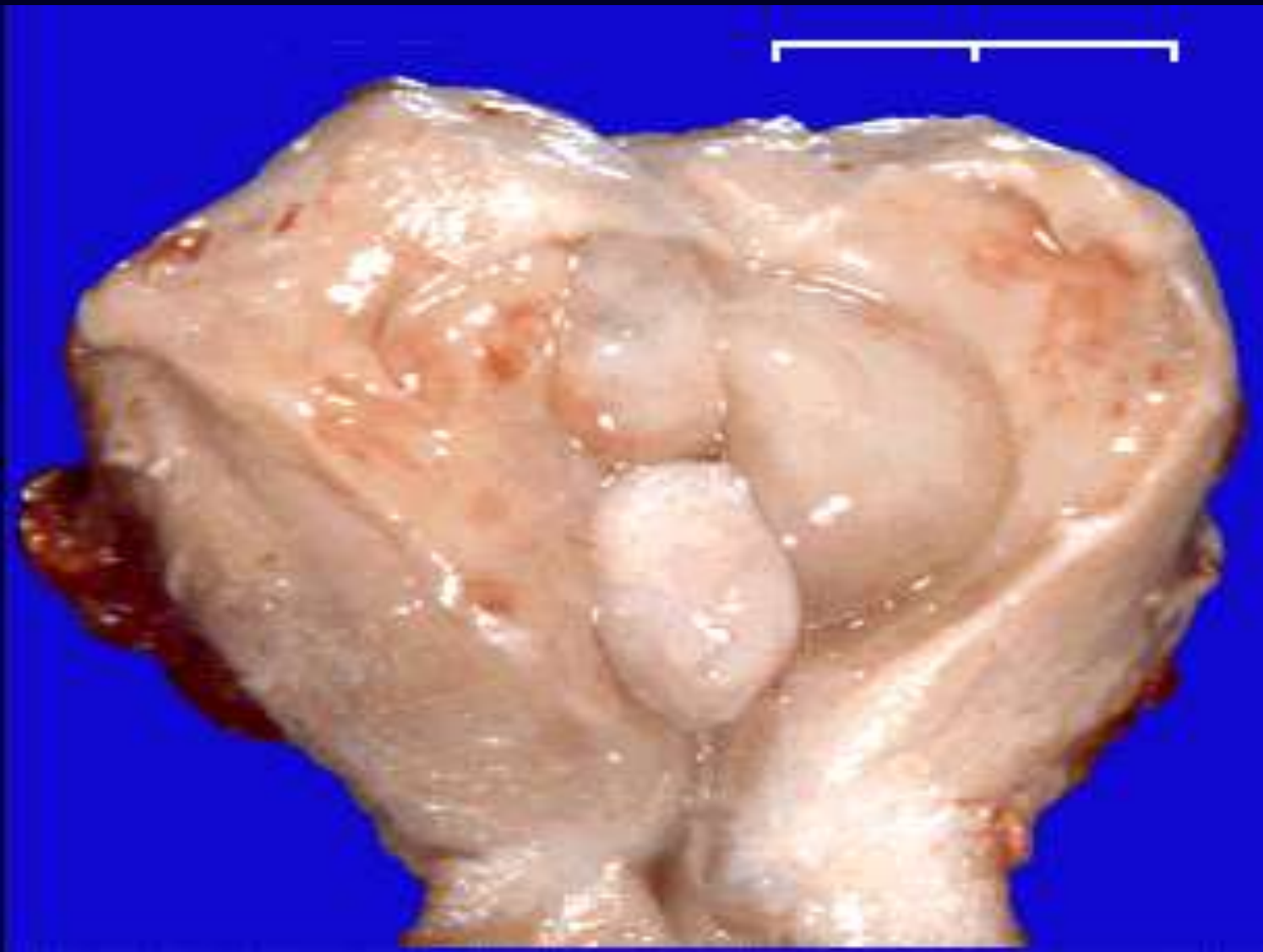
Localização

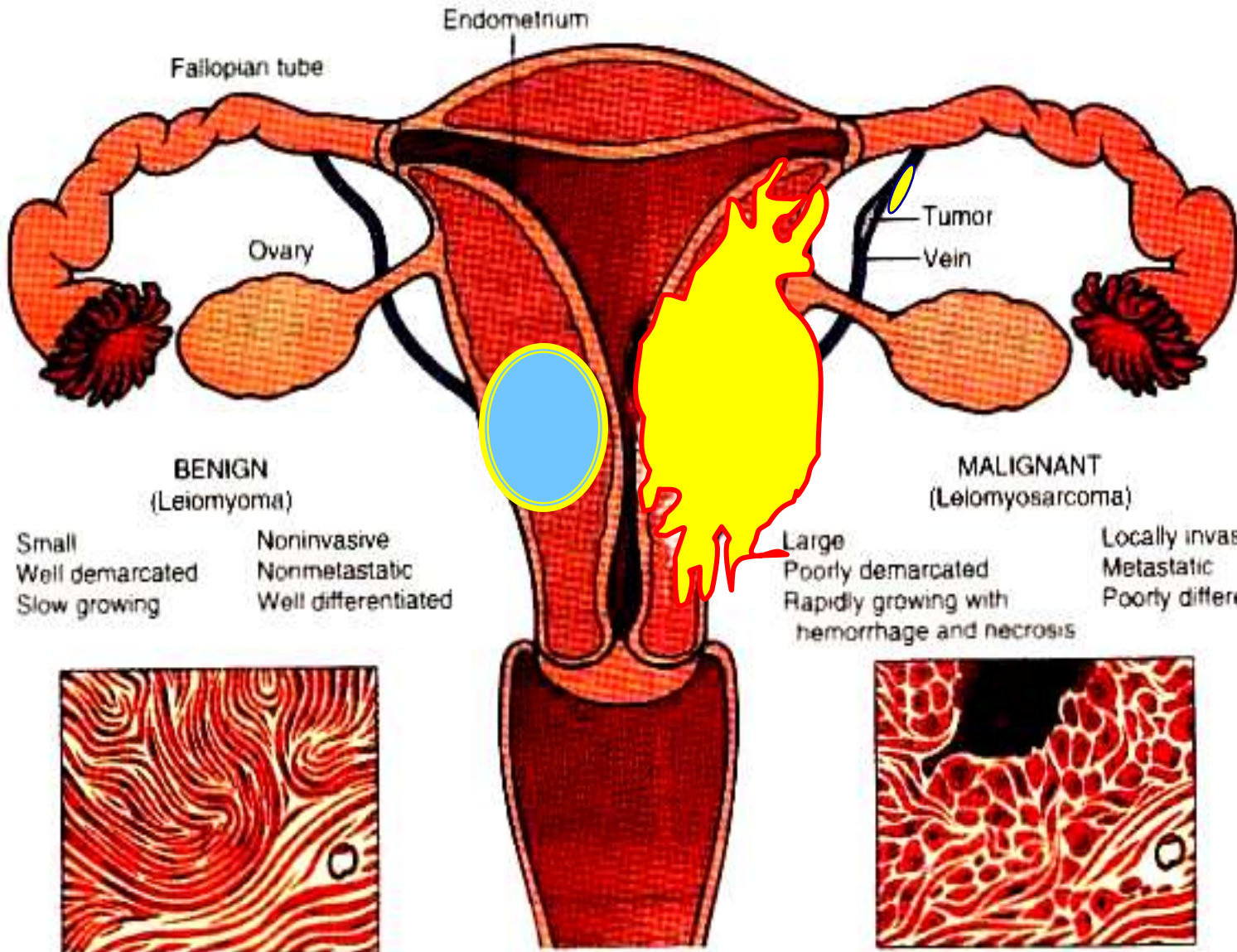












BENIGN
(Leiomyoma)

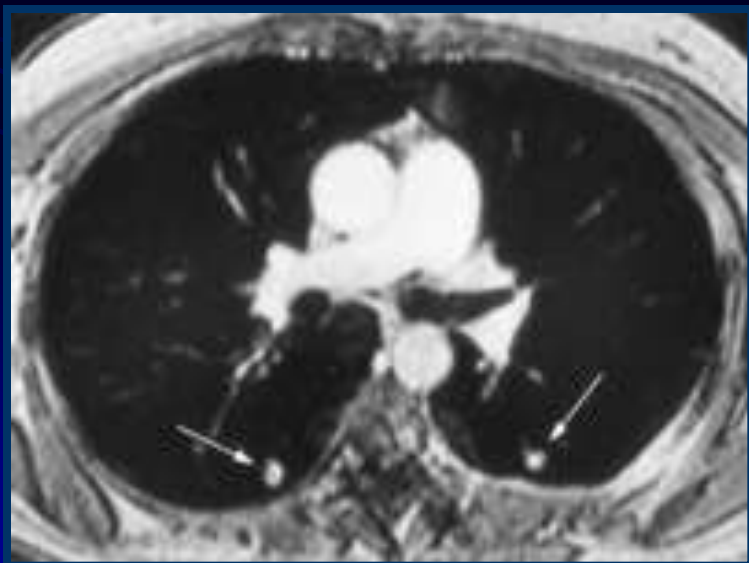
- Small
- Well demarcated
- Slow growing
- Noninvasive
- Nonmetastatic
- Well differentiated



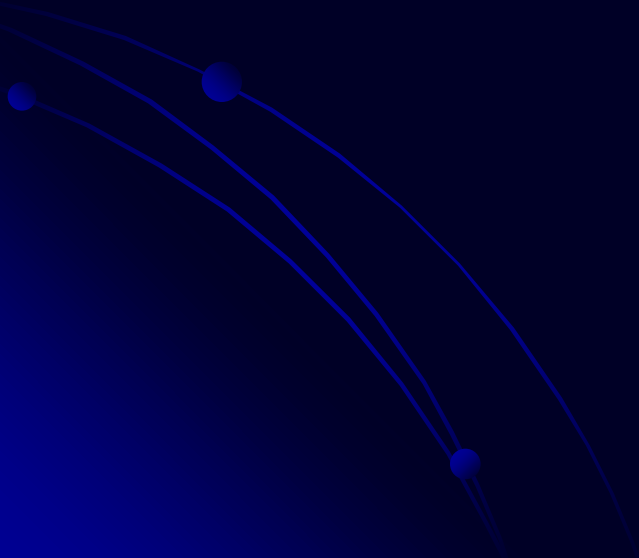
MALIGNANT
(Leiomyosarcoma)

- Large
- Poorly demarcated
- Rapidly growing with hemorrhage and necrosis
- Locally invasive
- Metastatic
- Poorly differentiate






QUADRO CLÍNICO



- Assintomáticos e sintomáticos
- Manifestações locais
 - aumento do fluxo menstrual
 - algia pélvica
 - Infertilidade
 - aumento do volume abdominal
 - Corrimento
 - compressão do trato intestinal, urinário e venoso

- Dor pélvica- 30 a 50% dos casos, dor tipo cólica ou em peso
 - Volume - compressão
 - Parturição- cólica e sangramento
 - Degeneração vermelha ou torção- dor abdominal aguda
- 

- Manifestações gerais

- anemia ferropriva

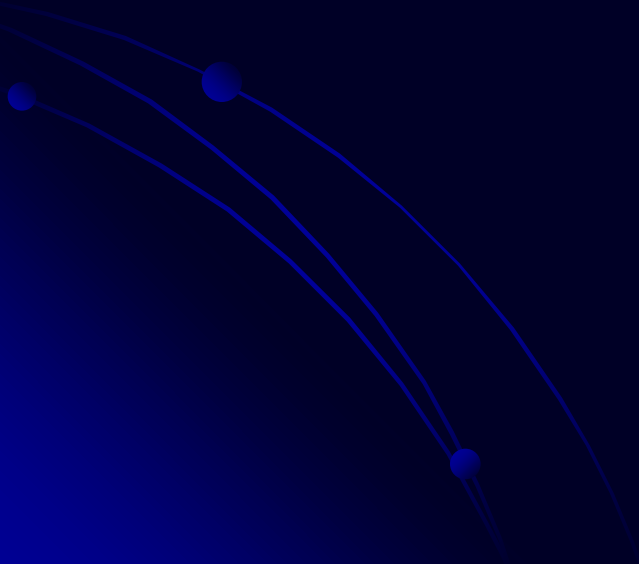
- Astenia


- dispnéia

- febre- necrose do mioma

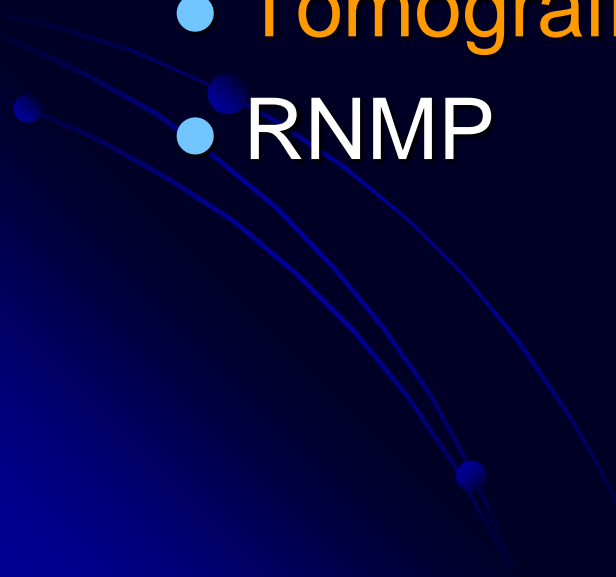


DIAGNÓSTICO



- Clínico
 - Laboratorial: impacto do sangramento
 - Radiológico
 - Endoscópico
- 

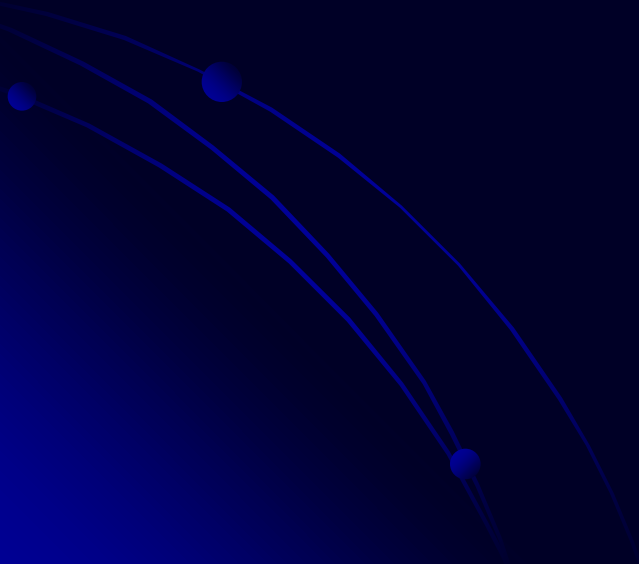
Radiológico

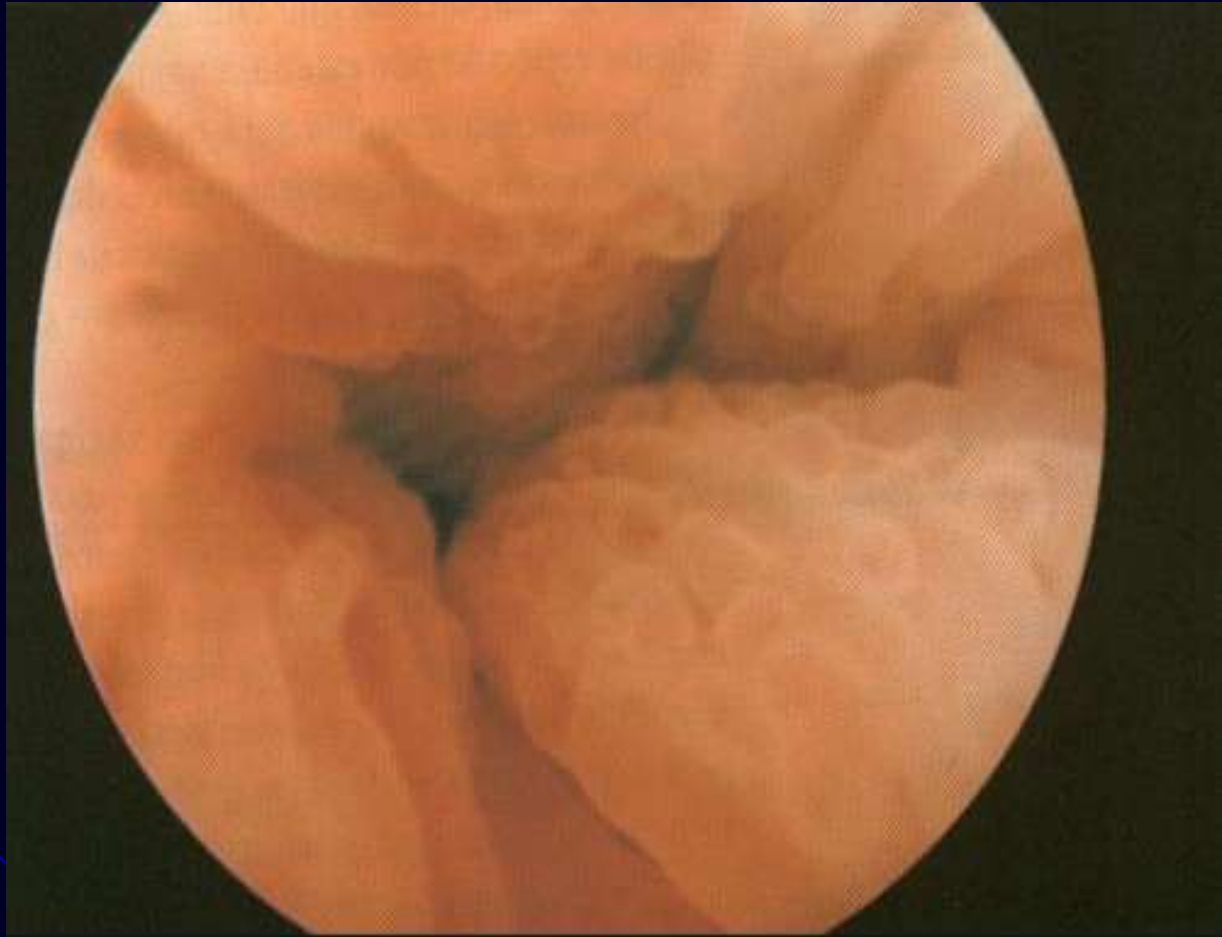
- US pélvica (doppler)
 - Histerossalpingografía
 - Histerosonografía
 - Tomografía
 - RNMP
- 

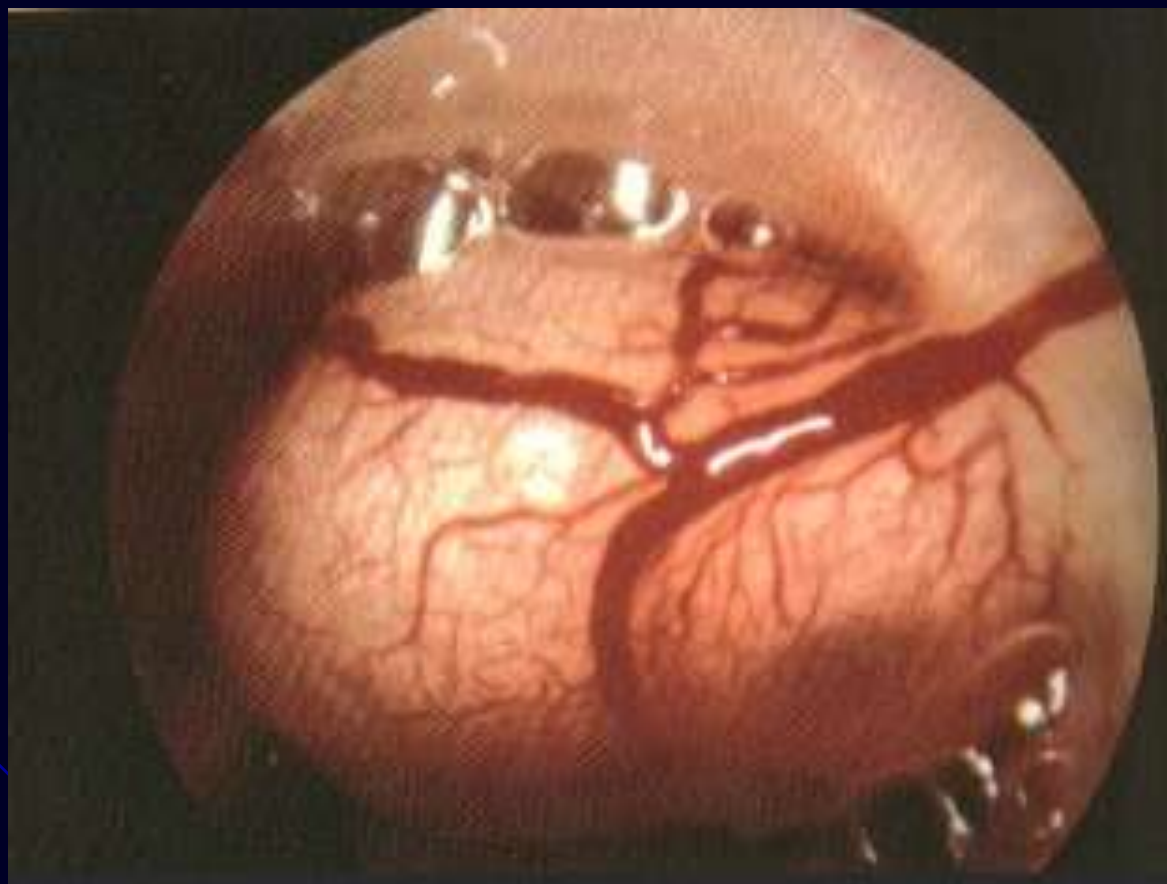
RNMP



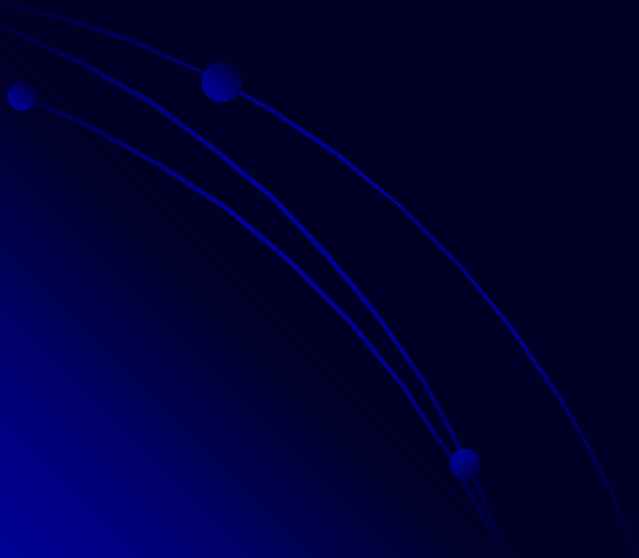
HISTEROSCOPIA





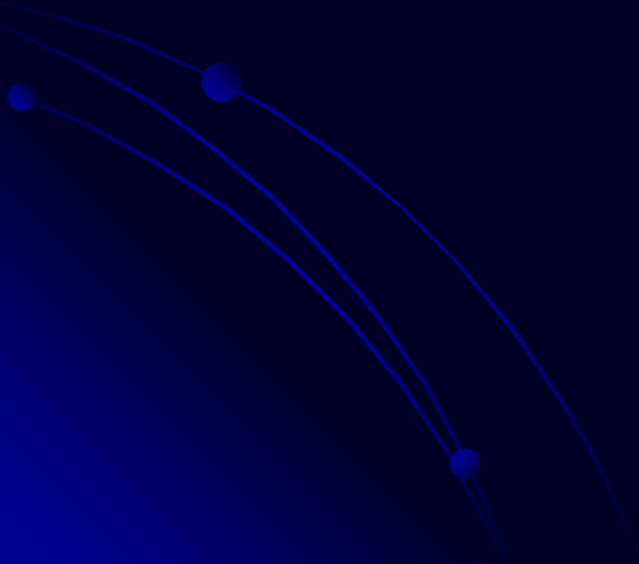


VIDEOLAPAROSCOPIA





TRATAMENTO



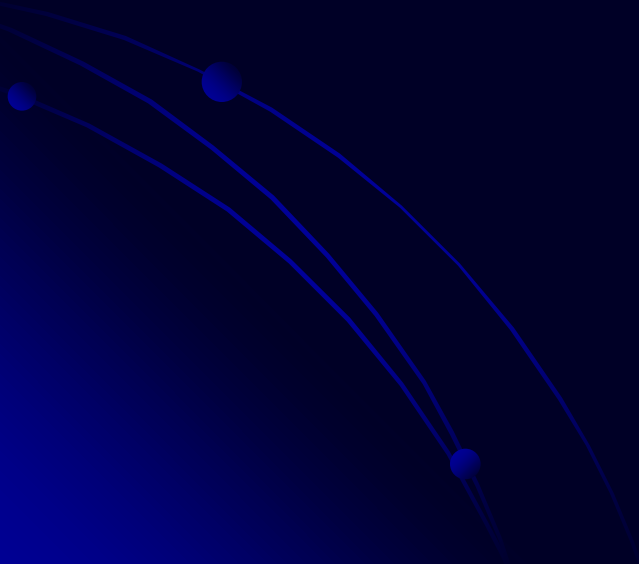
DÚVIDAS MAIS FREQUENTES EM MIOMAS

- Quando indicar o tratamento cirúrgico?
- Qual melhor estratégia?
- Quando indicar tratamentos alternativos?
- Quando indicar tratamento clínico? Único, neo ou adjuvante?
- Qual o melhor esquema?
- Quando indicar a embolização?
- Quando indicar tratamento ultrassônico?
- E nas recidivas?

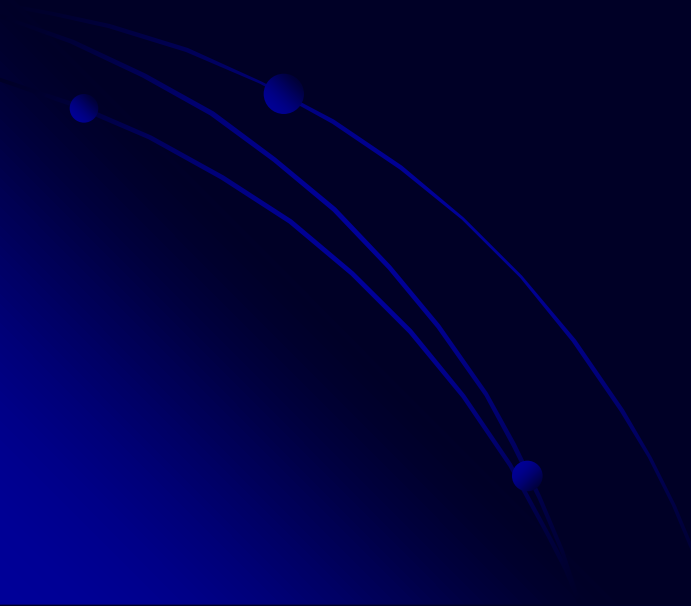
MIOMA


- Sintomatologia
- Infertilidade
- Localização
 - Subseroso?
 - Intramural?
 - Submucoso? G 0 ou 1 ou 2
 - Concomitantes?
- Número
- Idade
- Recidiva

Quando indicado o tratamento, qual a melhor técnica?



A cirúrgica



- Expectante
 - Medicamentoso
 - Cirúrgico
 - Embolização / Exablate
- 

TÉCNICAS ALTERNATIVAS

- Embolização
- Ultrassom focalizado de alta intensidade guiado por ressonância magnética (ExAblate):

Miomas até 10cm

Até 6 miomas

Benigno

Localização acessível

- N pedunculares

Visíveis a RM não contrastada

Ausência de calcificação

SUBMUCOSO

- Fundamental avaliar componente intramural
- RM melhor método
- Volume, número e invasão: >1 e $>50\%$ intramural – 2 tempos
- Pelo menos 5mm até serosa livre: associar a laparoscopia com a histeroscopia
- Muito útil o uso de análogo prévio

Estes miomas poderiam ser a causa da infertilidade?

Fibroids and infertility: an updated systematic review of the evidence

Elizabeth A. Pritts, M.D.,^a William H. Parker, M.D.,^b and David L. Olive, M.D.^a

^a Wisconsin Fertility Institute, Middleton, Wisconsin; and ^b Department of Obstetrics and Gynecology, University of California, Los Angeles, California

Effect of fibroids on fertility: all locations.

Outcome	Number of studies/substudies	Relative risk	95% confidence interval	Significance
Clinical pregnancy rate	18	0.849	0.734–0.983	$P = .029$
Implantation rate	14	0.821	0.722–0.932	$P = .002$
Ongoing pregnancy/live birth rate	17	0.697	0.589–0.826	$P < .001$
Spontaneous abortion rate	18	1.678	1.373–2.051	$P < .001$
Preterm delivery rate	3	1.357	0.607–3.036	Not significant

Pritts. *Fibroids and infertility*. *Fertil Steril* 2008.

Estes miomas poderiam ser a causa da infertilidade?

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^a Wisconsin Fertility Institute, Middleton, Wisconsin; and ^b Department of Obstetrics and Gynecology, University of California, Los Angeles, California

Effect of fibroids on fertility: submucous fibroids.

Outcome	Number of studies/ substudies	Relative risk	95% confidence interval	Significance
Clinical pregnancy rate	4	0.363	0.179–0.737	$P=.005$
Implantation rate	2	0.283	0.123–0.649	$P=.003$
Ongoing pregnancy/live birth rate	2	0.318	0.119–0.850	$P<.001$
Spontaneous abortion rate	2	1.678	1.373–2.051	$P=.022$
Preterm delivery rate	0	—	—	—

Pritts. *Fibroids and infertility. Fertil Steril* 2008.

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Effect of fibroids on fertility: intramural fibroids.

Outcome	Number of studies/ substudies	Relative risk	95% confidence interval	Significance
A. All studies				
Clinical pregnancy rate	12	0.810	0.696–0.941	$P = .006$
Implantation rate	7	0.684	0.587–0.796	$P < .001$
Ongoing pregnancy/live birth rate	8	0.703	0.583–0.848	$P < .001$
Spontaneous abortion rate	8	1.747	1.226–2.489	$P = .002$
Preterm delivery rate	1	6.000	0.309–116.606	Not significant
B. Prospective studies				
Clinical pregnancy rate	3	0.708	0.437–1.146	Not significant
Implantation rate	2	0.552	0.391–0.781	$P = .001$
Ongoing pregnancy/live birth rate	2	0.465	0.291–0.744	$P = .019$
Spontaneous abortion rate	2	2.384	1.110–5.122	$P = .002$
Preterm delivery rate	0	—	—	—

Estes miomas poderiam ser a causa da infertilidade?

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^a Wisconsin Fertility Institute, Middleton, Wisconsin; and ^b Department of Obstetrics and Gynecology, University of California, Los Angeles, California

Effect of myomectomy on fertility: intramural fibroids (fibroids in situ controls).

Outcome	Number of studies/ substudies	Relative risk	95% confidence interval	Significance
Clinical pregnancy rate	2	3.765	0.470–30.136	Not significant
Implantation rate	0	—	—	—
Ongoing pregnancy/live birth rate	1	1.671	0.750–3.723	Not significant
Spontaneous abortion rate	1	0.758	0.296–1.943	Not significant
Preterm delivery rate	0	—	—	—

Pritts. *Fibroids and infertility. Fertil Steril* 2008.

Tratamento cirúrgico (Laparoscopia x Laparotomia)

Laparoscopic versus abdominal myomectomy: A prospective, randomized trial to evaluate benefits in early outcome

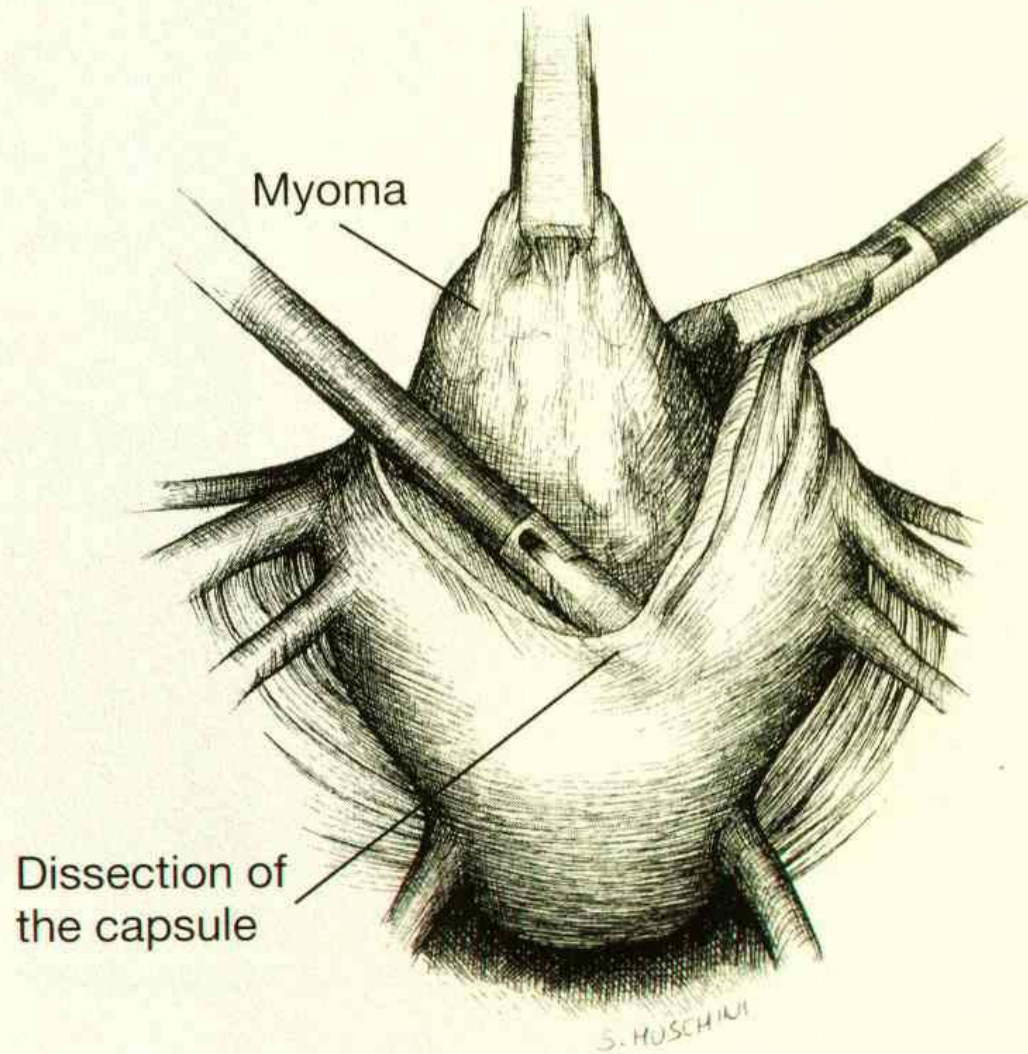
Valerio Mais, MD, Silvia Ajossa, MD, Stefano Guerriero, MD, Monica Mascia, MD, Enrico Solla, MD, and Gian Benedetto Melis, MD

Cagliari, Italy

February 1996
Am J Obstet Gynecol

Outcome measures	Laparoscopy (n = 20)	Laparotomy (n = 20)	Significance
Blood loss (ml)*	200 ± 50	230 ± 44	$p > 0.05$
Operation time (min)*	100 ± 31	93 ± 27	$p > 0.05$
Analgesic injections*	1.9 ± 0.7	4.1 ± 1.4	$p < 0.05$
Analgesic-free patients at day 2 (%)	85	15	$p < 0.05$
Patients discharged by day 3 (%)	90	10	$p < 0.05$
Patients fully recuperated at day 15 (%)	90	5	$p < 0.05$

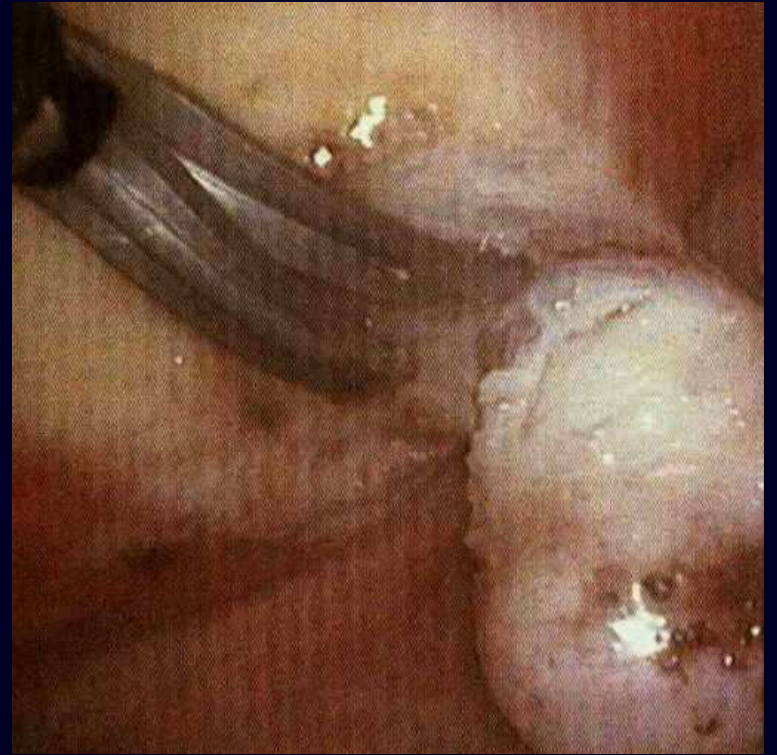
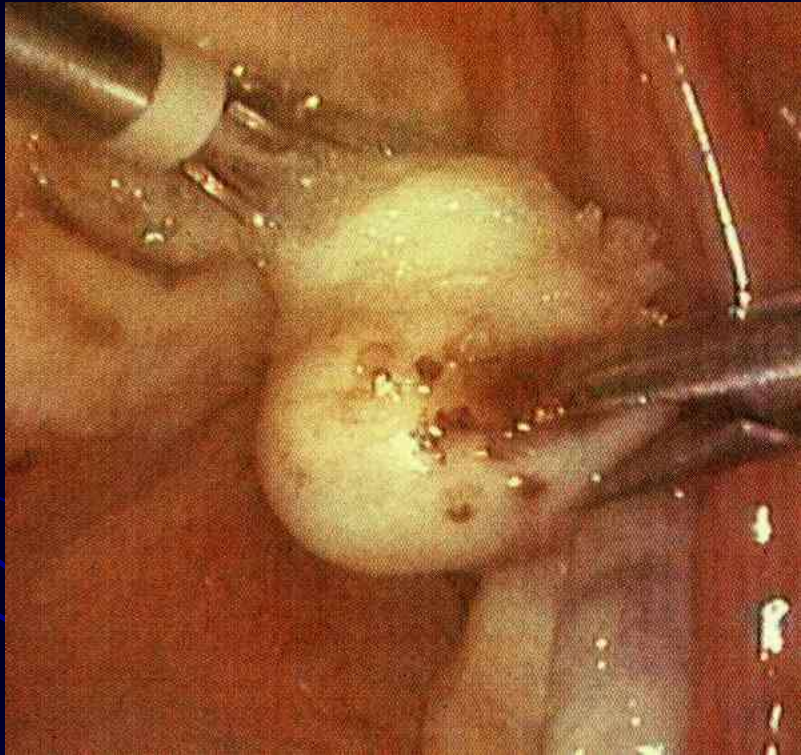
Sugere laparoscopia para até 5 miomas (maior com menos de 7 cm)



Myoma

Dissection of
the capsule

S. HUSCHINI



Randomized study of laparoscopic versus minilaparotomic myomectomy for uterine myomas

THE JOURNAL OF
MINIMALLY INVASIVE
GYNECOLOGY

Franco Alessandri, MD, Davide Lijoi, MD, Emanuela Mistrangelo, MD,
Simone Ferrero, MD, and Nicola Ragni, MD

Table 2 Comparison between minilaparotomy and laparoscopy

	Minilaparotomy (n = 74)	Laparoscopy (n = 72)	p Value
Operation time (min; mean \pm SD)	85 \pm 14	98 \pm 13 [↑]	<.001
Decline of hemoglobin concentration (g/dL; mean \pm SD)	2.2 \pm 0.5	1.1 \pm 0.5	<.001
Pain intensity in the whole study group at 6 hours after surgery (on a 10 mm VAS scale; mean \pm SD)	6.5 \pm 1.5	4.1 \pm 1.5	<.001
Pain intensity in patients not requesting analgesics at 24 hours after surgery (on a 10 mm VAS scale; mean \pm SD)	2.8 \pm 1.8 (n=20)	3.1 \pm 1.5 (n=48)	.519
Request of analgesic (n; %, 95% confidence interval)	54 (73.0%, 61.4%-82.6%)	25 (34.7%, 23.9%-46.9%)	<.001
Time of postoperative ileus (hours; mean \pm SD)	45 \pm 6	28 \pm 6	<.001
Time to discharge (hours; mean \pm SD)	48 \pm 12	38 \pm 12	<.001
Patients fully recuperated on day 15 (n; %, 95% confidence interval)	55 (74.3%, 62.8%-83.8%)	65 (90.3%, 81.0%-96.0%)	.012

A multicenter randomized, controlled study comparing laparoscopic versus minilaparotomic myomectomy: short-term outcomes

Palomba et al.

Main parameters evaluated during and after surgery in the laparoscopic and minilaparotomic groups.

Group	Laparoscopy (n = 68)	Minilaparotomy (n = 68)	P value
Total operative time (min)	108 (28); 69–150	95 (53); 62–174	.227
Time of enucleation for each leiomyoma (min)	12 (3); 8–16	10 (7); 4–16	.005
Time of suturing hysterotomy (min)	18 (4); 13–26	16.5 (12); 7–26	.020
Intraoperative blood loss (mL)	130 (78); 90–200	160.0 (65); 90–280	.001
ΔHb	0.8 (0.7); 0.2–2.1	1.3 (0.8); 0.2–2.5	<.001
Degree of surgical difficulty	7.5 (2); 4–9	6 (3); 3–9	.003
Vials of analgesic used (n)	3 (2); 1–8	7 (2); 2–10	<.001
Postoperative ileus (days)	1 (0); 1–3	1 (1); 1–3	.061
Hospitalization (days)	2 (0); 2–5	3 (0); 3–5	<.001
Time to return to full activity (days)	5 (2); 3–11	5 (2); 3–12	.502

Note: Data are expressed as median (interquartile range) and minimum–maximum values.

Palomba. Laparoscopic and minilaparotomic myomectomy. *Fertil Steril* 2007.

Tratamiento cirúrgico (Laparoscopia x Laparotomía)

Human Reproduction vol.15 no.12 pp.2663–2668, 2000

Fertility and obstetric outcome after laparoscopic myomectomy of large myomata: a randomized comparison with abdominal myomectomy

R.Seracchioli, S.Rossi, F.Govoni, E.Rossi,
S.Venturoli, C.Bulletti and C.Flamigni

Table III. Obstetric outcome after abdominal or laparoscopic myomectomy

	Abdominal myomectomy	Laparoscopic myomectomy
Pregnancy rate (%)	33/59 (55.9)	30/56 (53.6)
Abortion rate (%)	4 (12.1)	6 (20)
Ongoing pregnancy	2	3
Ectopic pregnancy	0	1
Deliveries	27	20
Preterm deliveries (%)	2 (7.4)	1 (5)
Vaginal deliveries (%)	6 (22.2)	7 (35)
Caesarean sections (%)	21 (77.8)	13 (65)
Uterine rupture	0	0

There were no significant differences between the groups.

Tratamento cirúrgico (Laparoscopia x Laparotomia)

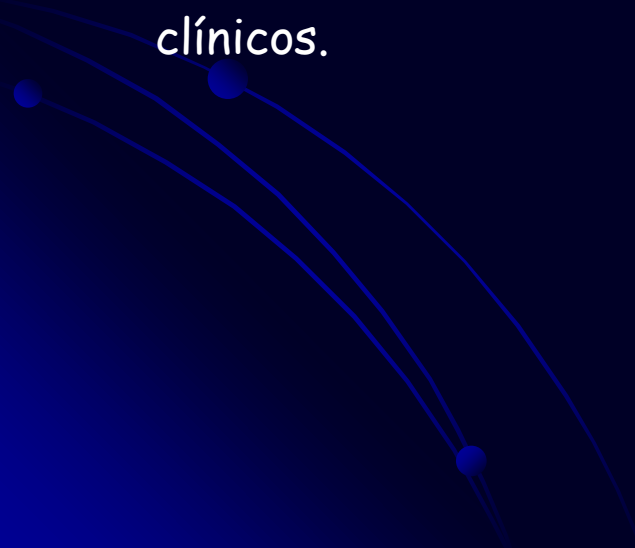
Human Reproduction Vol.16, No.4 pp. 770-774, 2001

Long-term results of laparoscopic myomectomy: recurrence rate in comparison with abdominal myomectomy

Alfonso Rossetti¹, Ornella Sizzi¹, Liberato Soranna², Francesco Cucinelli², Salvatore Mancuso² and Antonio Lanzone^{3,4}

	Laparoscopic myomectomy (41 patients)	Abdominal myomectomy (40 patients)
Pre-operative study		
Pelvic pain (%)	29	30
Sterility (%)	34	35
Menorrhagia (%)	31	29
Pelvic mass (%)	6	6
Myomectomy study		
Age (years) ^a	35 ± 5	35 ± 3
Number of myomas	90	94
Volume of myomas (cm ³) ^a	92.5 + 108.5	152 + 137
Number of myomas/patient (range)	2.2 (1-7)	2.3 (1-7)
Follow-up study		
Myoma recurrences (%)	11/41 (27)	9/40 (23)

Tratamentos alternativos? (embolização dos miomas; Exablate)

- Não existem estudos prospectivos comparando a embolização ou o uso do exablate com a miomectomia em relação à taxa de gestação.
 - O uso da embolização ou do exablate em pacientes que ainda desejam gestar, no momento, deve ser limitado aos ensaios clínicos.
- 

CONSIDERAÇÕES FINAIS

- Conduta deve ser baseada em evidências
- Bom senso deve prevalecer para saber individualizar
- Era da responsabilidade médica