



Università degli Studi di Padova
Dipartimento di salute della donna e del bambino – SDB
U.O.C. Clinica Ginecologica ed Ostetrica
Scuola di Specializzazione in Ginecologia e Ostetricia
Direttore Prof. Giovanni Battista Nardelli



Aspetti ecografici del carcinoma dell'endometrio

Dott.ssa Francesca Ciccarone



Caso clinico

A.M. 50 anni

PARA 3003 3 TC

In menopausa da 2 anni

Pap Test Settembre 2014 riferito negativo

Interventi chirurgici: appendicectomia LPT
con riferita asportazione annesso sinistro

- Per PEAM e dolori addominali esegue controllo ginecologico.
- 29/01/2015 Esegue ISC con biopsia



**EID adenocarcinoma
endometriale con aspetti
papillari**



18/02/2015

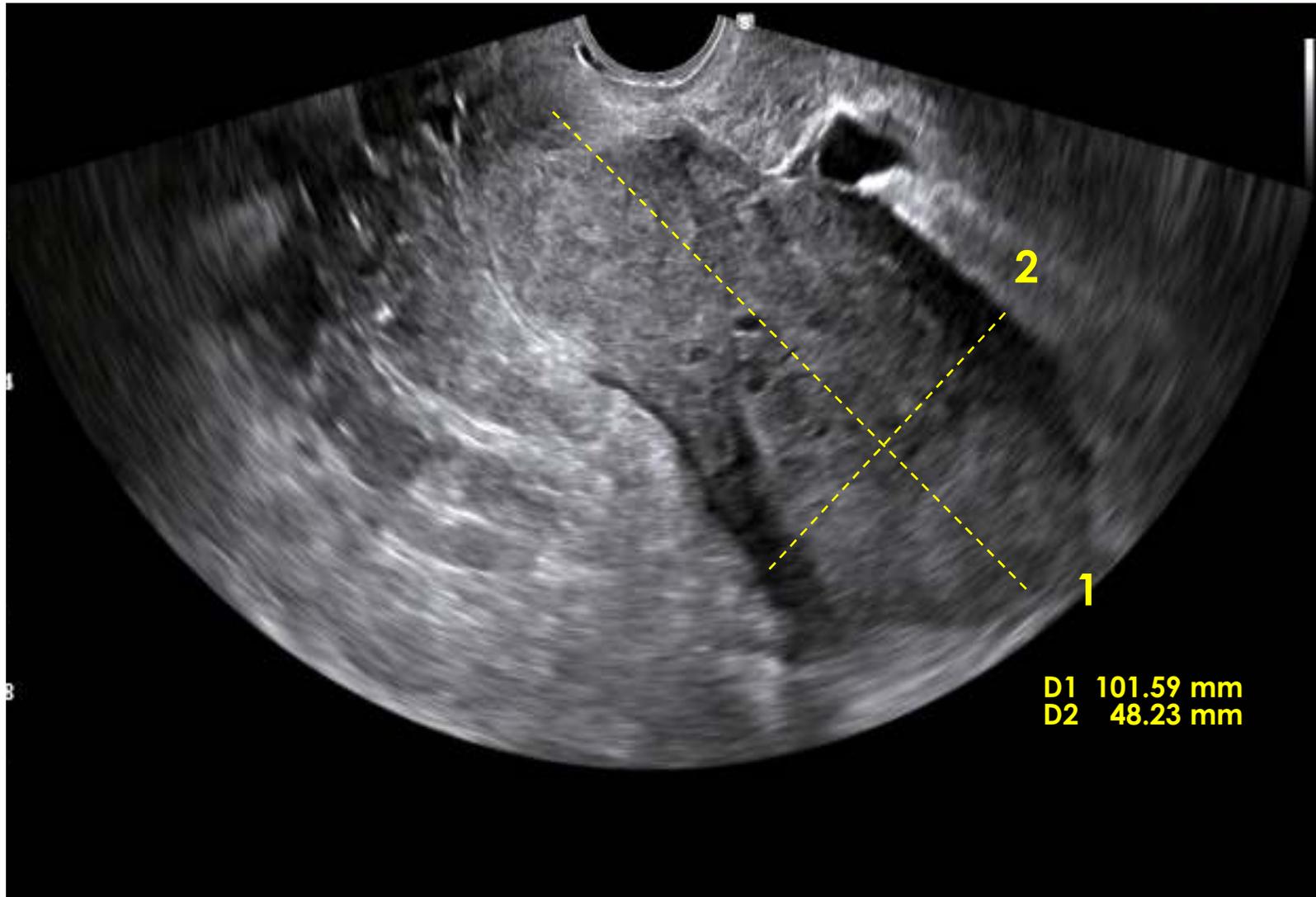
TOTAL BODY SENZA E CON MDC EV

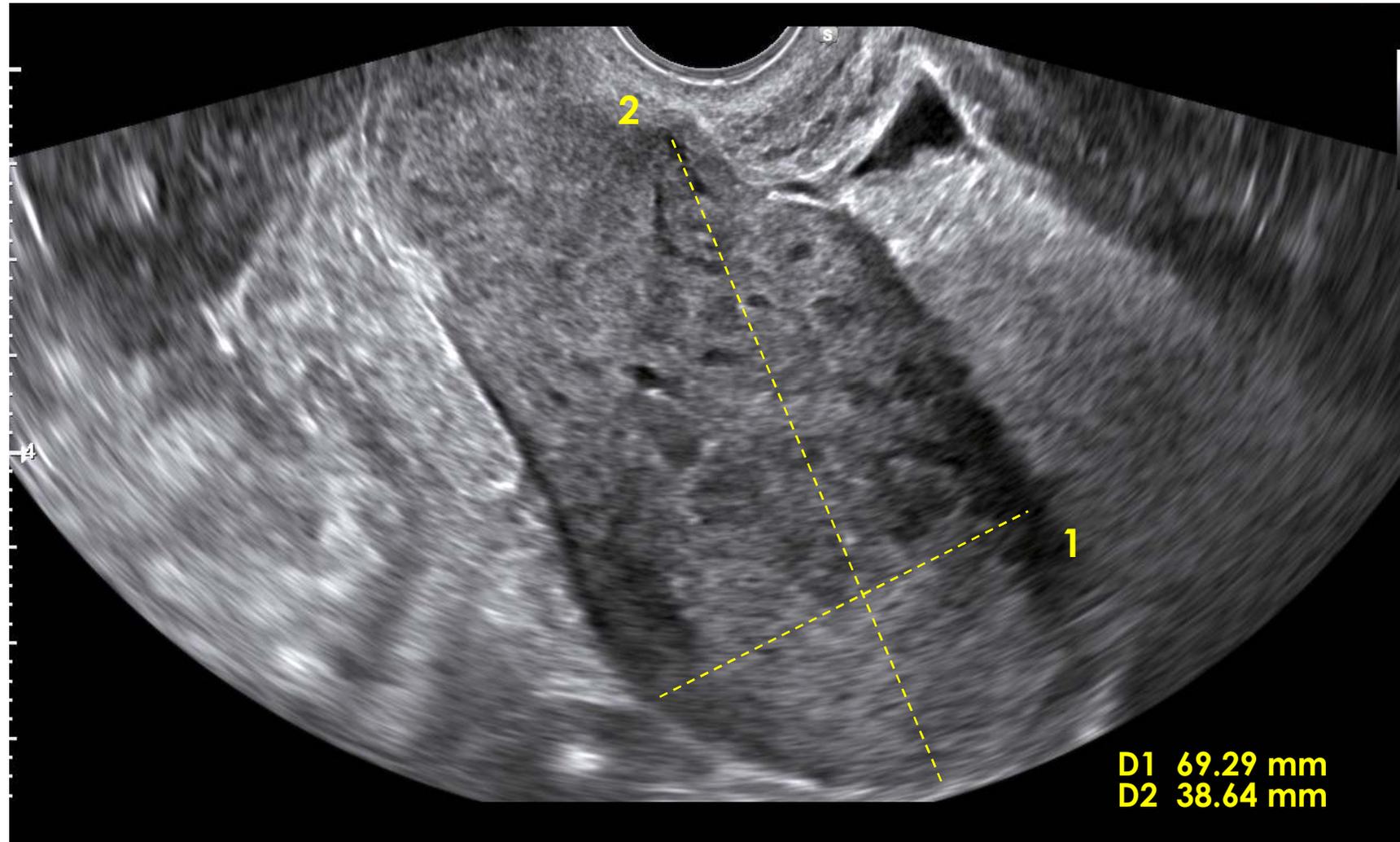
“**..Linfadenopatie** ipodense intercavo-paraaortiche di diametri massimi di 17 x 31 mm. Analoghi aspetti si osservano a sede lombo-aortica sinistra (13 x 19 mm), iliaca destra (16 x 19 mm), iliaca sinistra (12 x 18 mm). Regolari per calibro e decorso i grossi vasi addominali retroperitoneali. Vescica in sede, a pareti regolari, senza apprezzabilità di lesioni infiltranti e/o vegetanti.

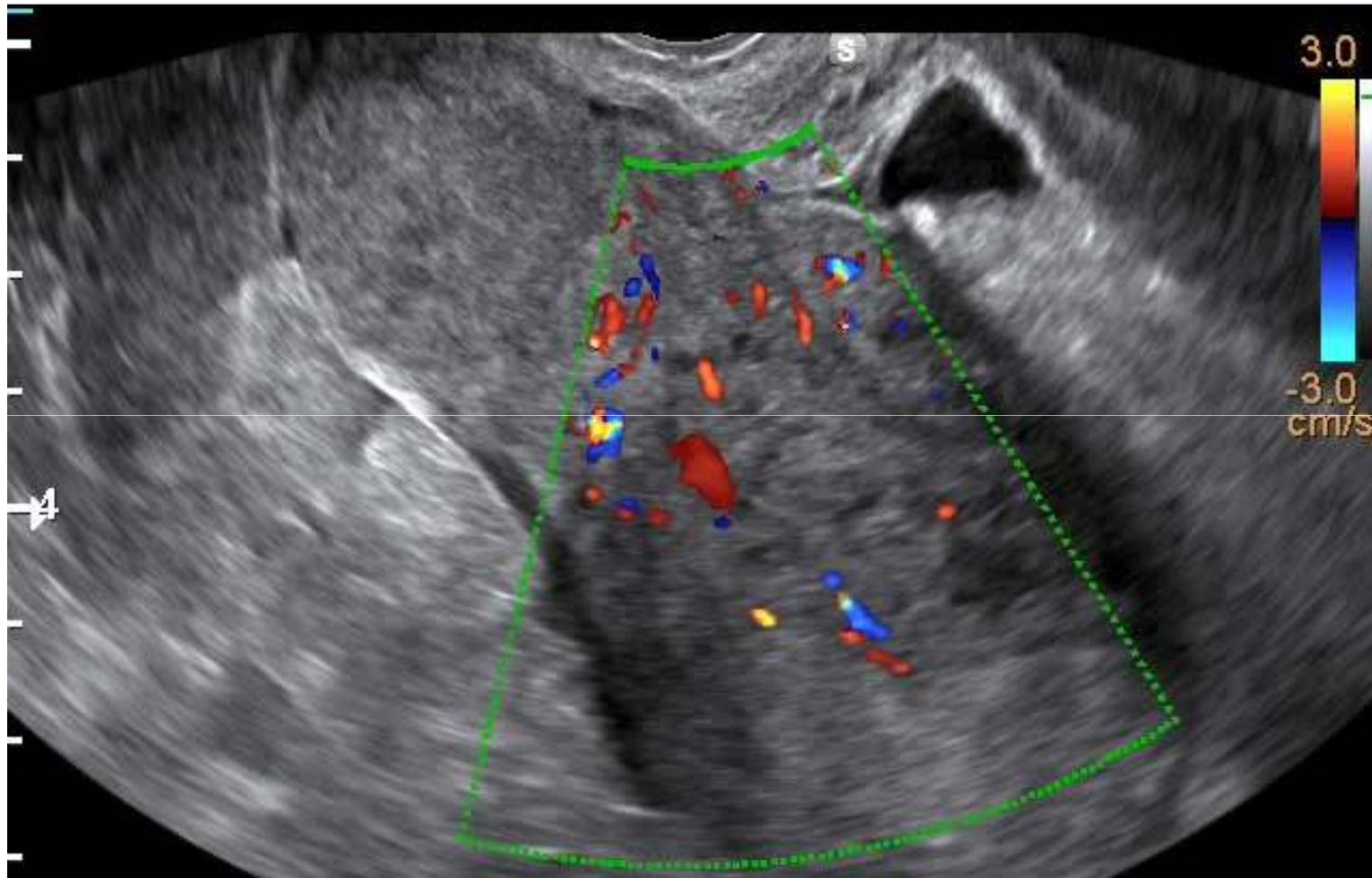
Utero in sede, aumentato di volume, a densità diffusamente disomogenea per la presenza di un'ampia quota di tessuto neoformato endometriale (40 x 55 mm) che infiltra a tutto spessore il miometrio fundico, a sede paramediana sinistra...”

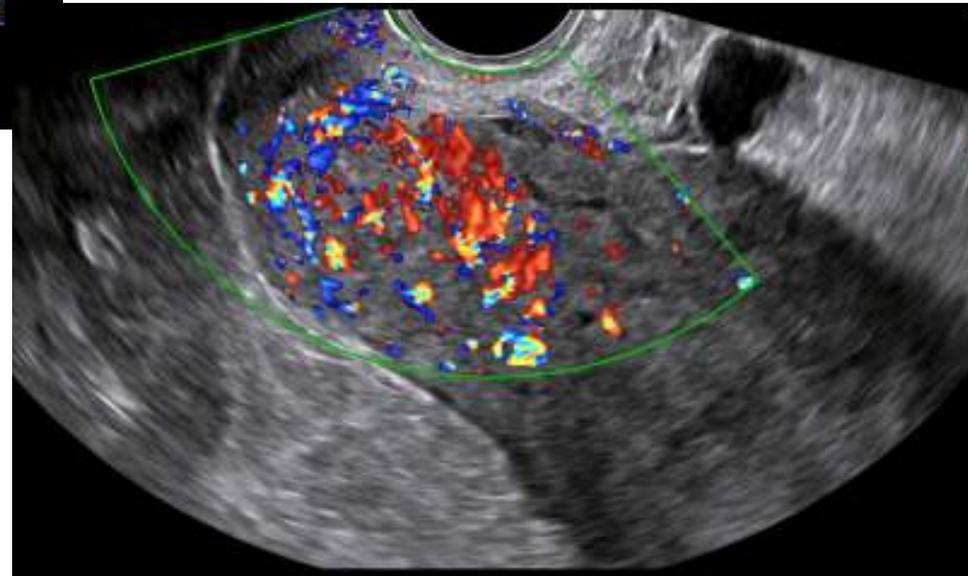
27/02/2015

Ecoflussimetria per preOspedalizzazione







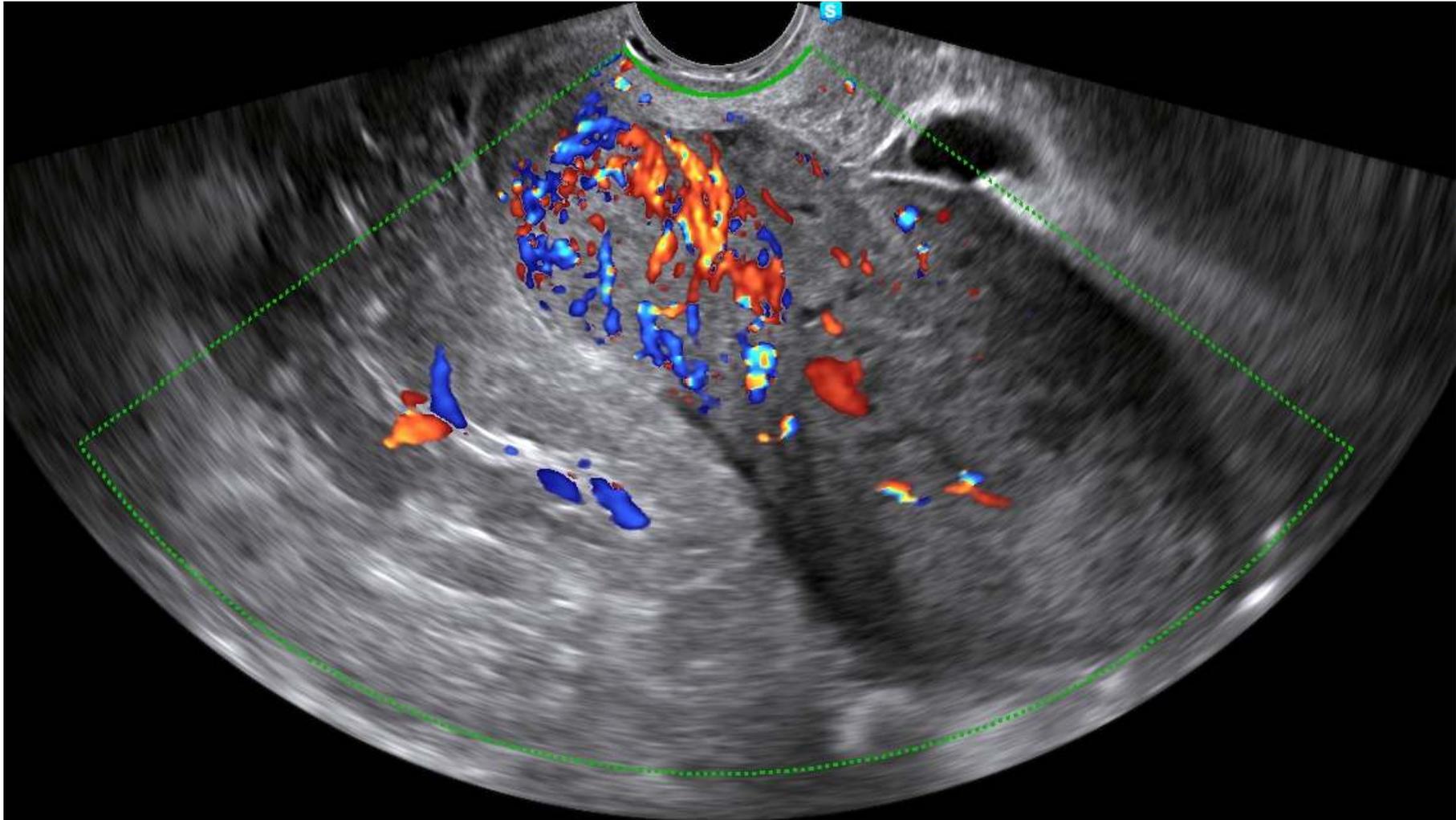




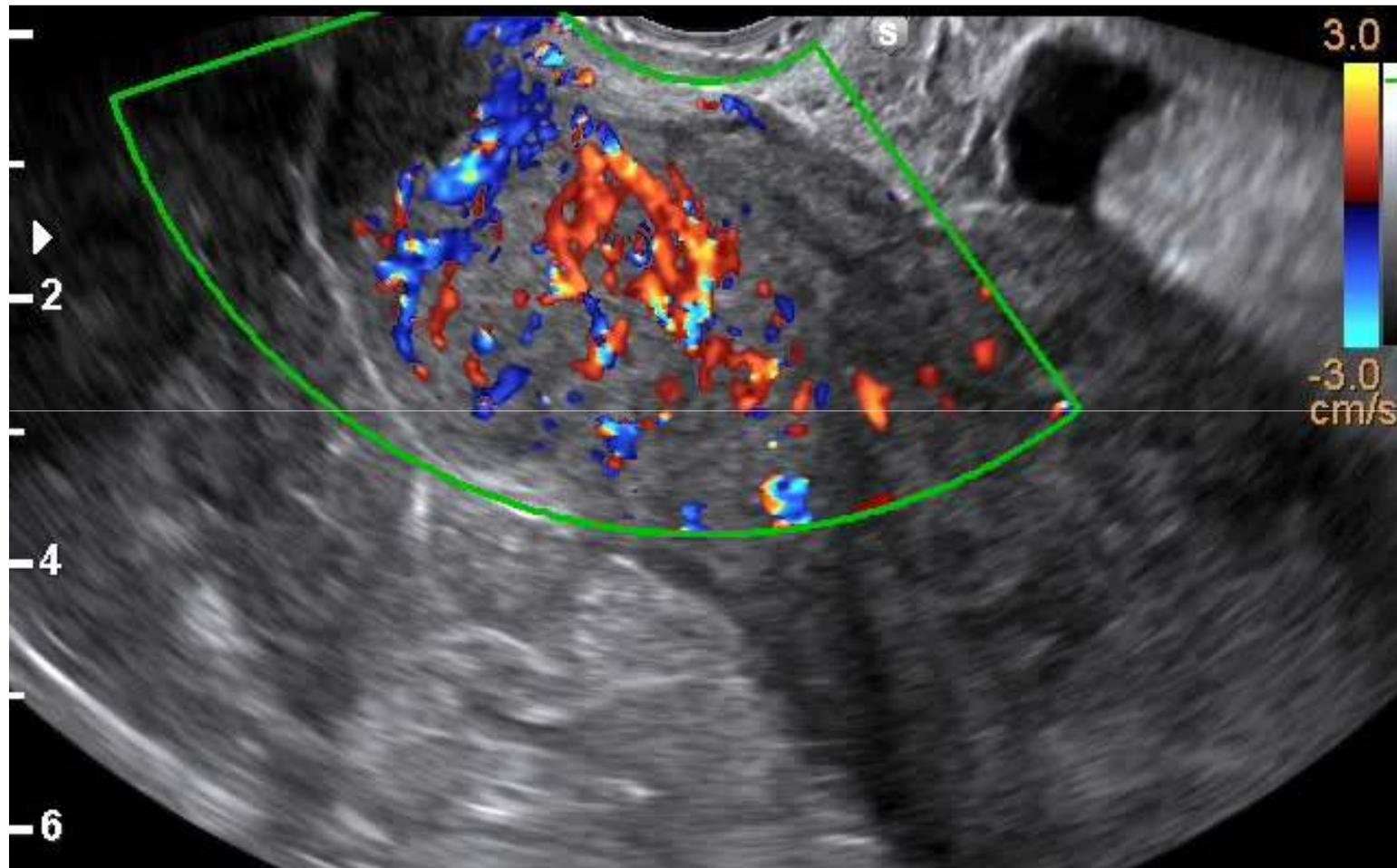
Scuola di Specializzazione in Ginecologia ed Ostetricia

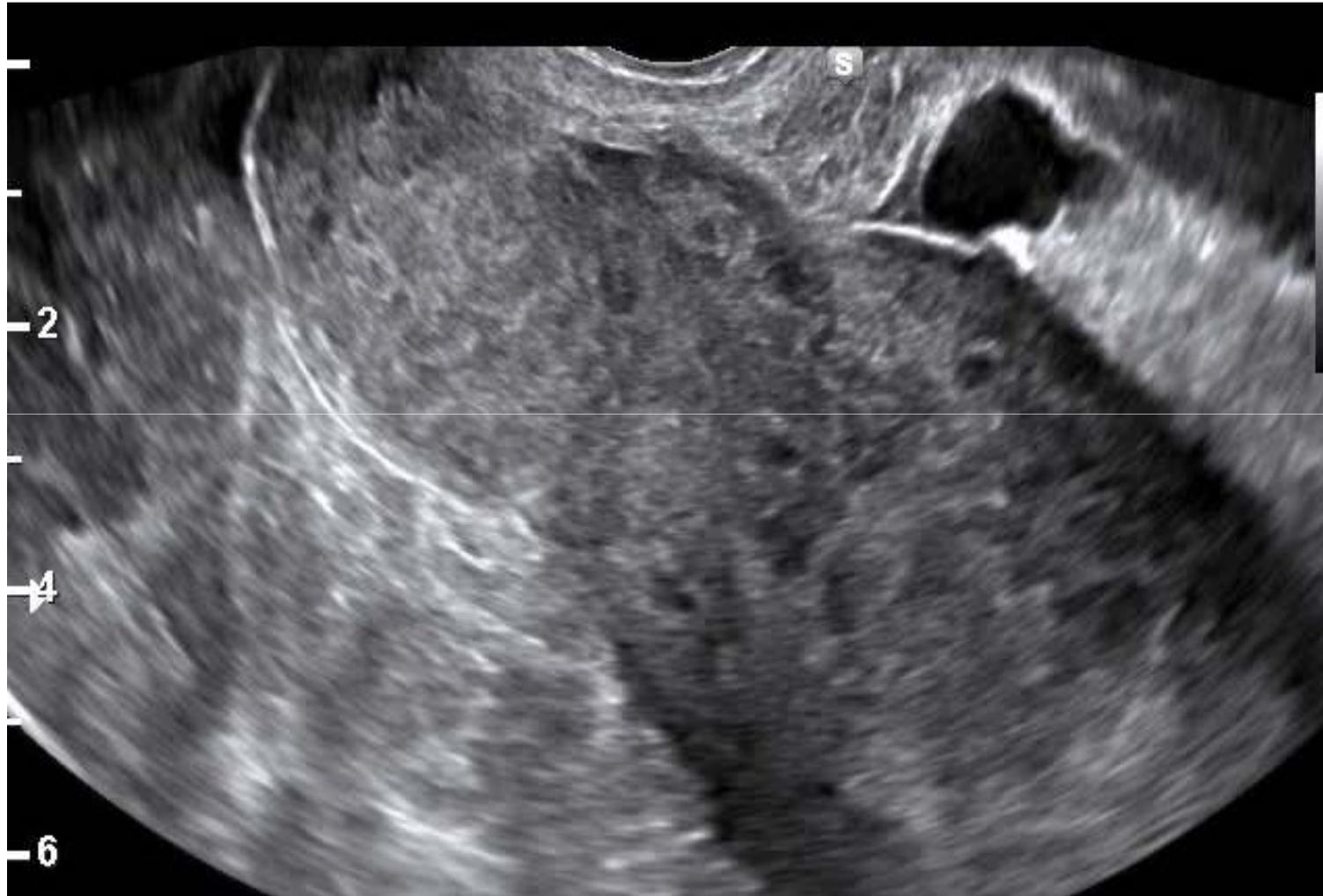


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DI PADOVA



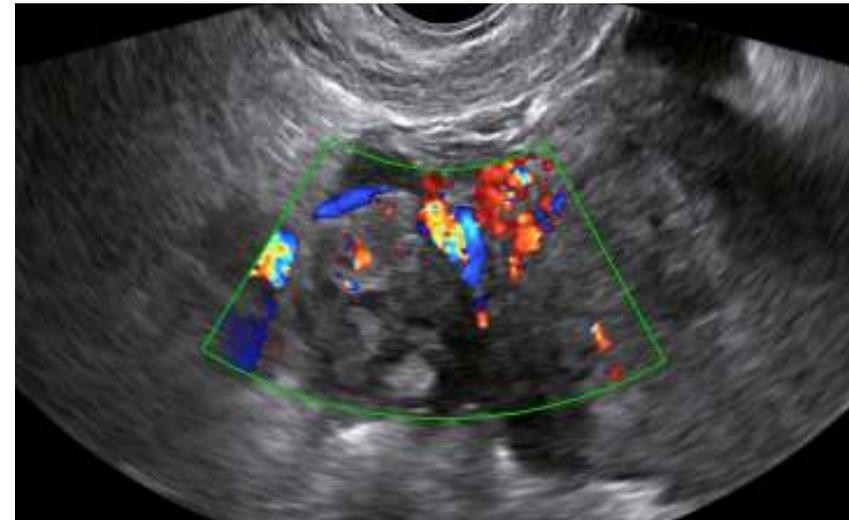
*Dipartimento della Salute della Donna e del Bambino
U.O.C. di Clinica Ginecologica ed Ostetrica - Direttore Prof. G.B. Nardelli*







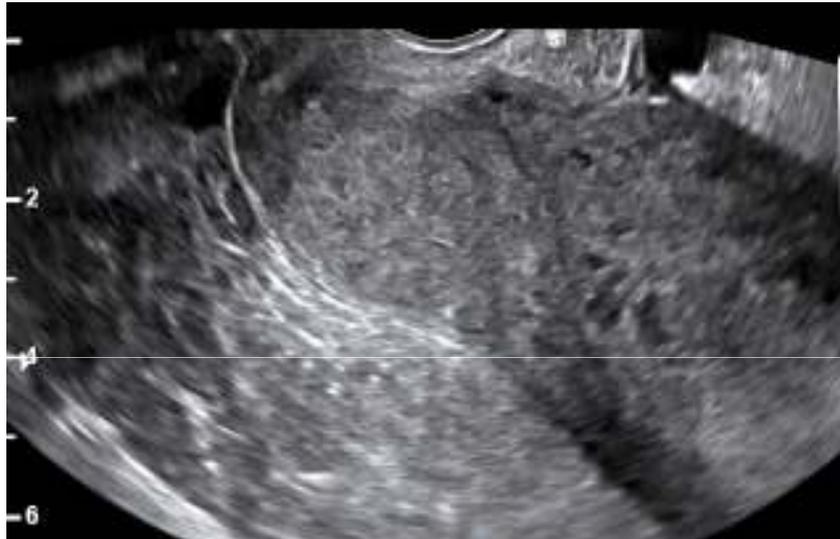
Annesso destro







Studio parametri e setti





Carcinoma dell'endometrio

Epidemiologia

- 6° tra i tumori più frequenti nelle donne
- maggiore incidenza in Europa ed in Nord America
- rappresenta per incidenza circa il 5% del totale dei tumori femminili
- circa 288.000 nuovi casi e 74.000 morti per anno stimati nel 2008 negli USA

Jemal A, CA Cancer J Clin 2008



Carcinoma dell'endometrio

La stadiazione del carcinoma endometriale è chirurgica

Ultrasound Obstet Gynecol 2010; 35: 103–112

Published online 15 December 2009 in Wiley InterScience (www.interscience.wiley.com). DOI: 10.1002/uog.7487

Terms, definitions and measurements to describe the sonographic features of the endometrium and intrauterine lesions: a consensus opinion from the International Endometrial Tumor Analysis (IETA) group

F. P. G. LEONE*, D. TIMMERMAN†, T. BOURNE‡, L. VALENTIN§, E. EPSTEIN¶,
S. R. GOLDSTEIN**, H. MARRET††, A. K. PARSONS‡‡, B. GULL§§, O. ISTRE¶¶,
W. SEPULVEDA***, E. FERRAZZI††† and T. VAN DEN BOSCH†



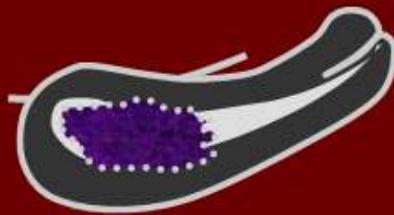
Valutazione ecografica

- Morfologia
- Ecostruttura
- Diametri
- Vascolarizzazione
- Infiltrazione miometriale
- Infiltrazione cervicale
- Rapporto con gli organi pelvici
- Valutazione annessiale e linfonodale



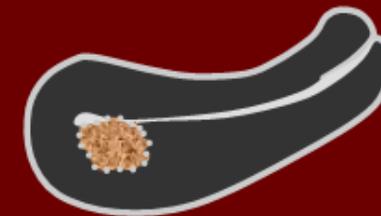
Morfologia Istotipo

- Tipo I
- Estrogeno dipendente
- Pre/Postmenopausa
- Endometrioides
- Basso grado
- Ridotta invasione miometriale



Aggettante

- Tipo II
- Estrogeno indipendente
- Postmenopausa
- Sieroso
- Alto grado
- Profonda invasione miometriale



Infiltrante



Ecogenicità "uniforme"

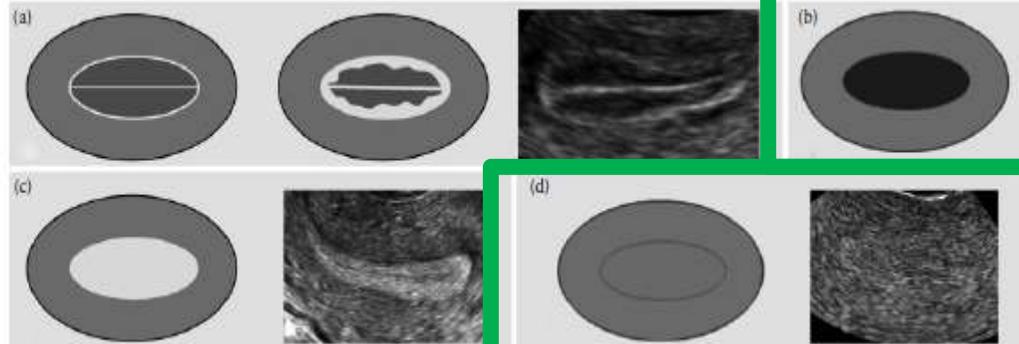


Figure 3 'Uniform' endometrial echogenicity: three-layer pattern (a), hypoechogenic (b), hyperechogenic (c) and isoechogenic (d).

Ultrasound Obstet Gynecol 2011; 38: 586–593
Published online 30 August 2011 in Wiley Online Library (wileyonlinelibrary.com). DOI: 10.1002/uog.9038

Gray-scale and color Doppler ultrasound characteristics of endometrial cancer in relation to stage, grade and tumor size

E. EPSTEIN*, C. VAN HOLSBEKE†, F. MASCILINI‡, A. MÅSBÄCK§, P. KANNISTO¶, L. AMEYE***, D. FISCHEROVA††, G. ZANNONI††, V. VELLONE††, D. TIMMERMAN¶¶ and A. C. TESTA†

“Tumor stage IA, of Grade 1 or 2 are more often hyperechoic and have more frequently low or no vascularization”

Ecogenicità "non uniforme"

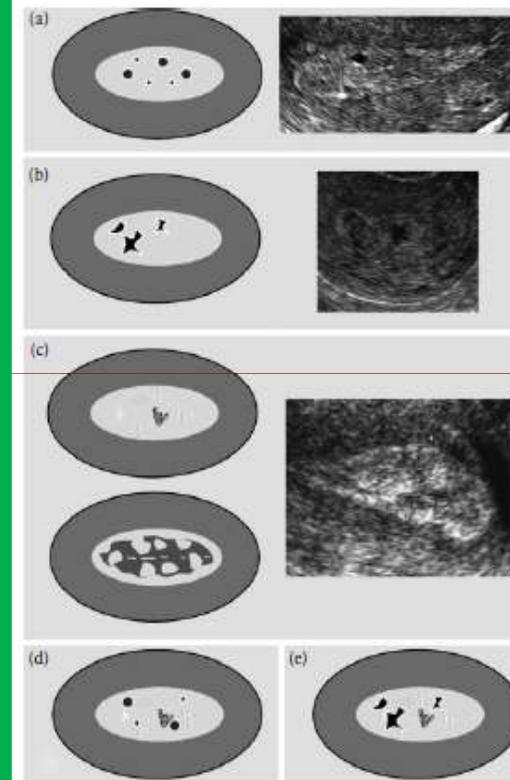


Figure 4 'Non-uniform' endometrial echogenicity: homogeneous background with regular cystic areas (a), homogeneous background with irregular cystic areas (b), heterogeneous background without cystic areas (c), heterogeneous background with regular cystic areas (d) and heterogeneous background with irregular cystic areas (e); black color denotes cystic spaces.



Interlinea endometriale

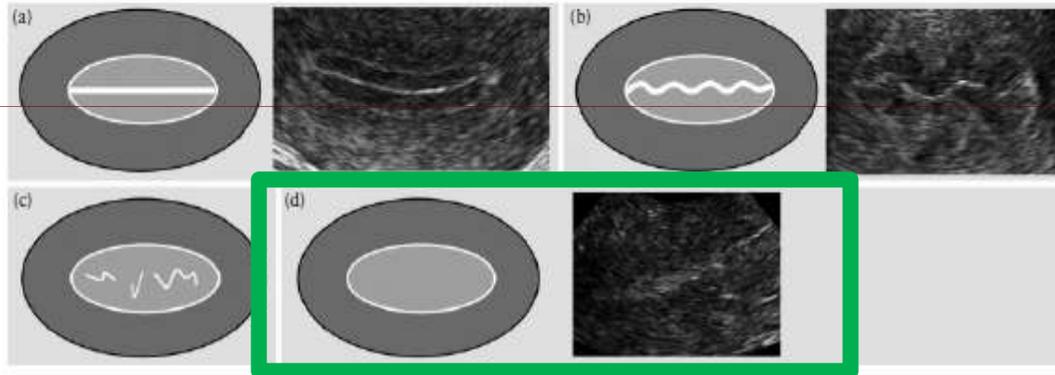


Figure 5 Endometrial midline: 'linear' (a), 'non-linear' (b), 'irregular' (c) and 'not defined' (d).

Fluido intracavitario

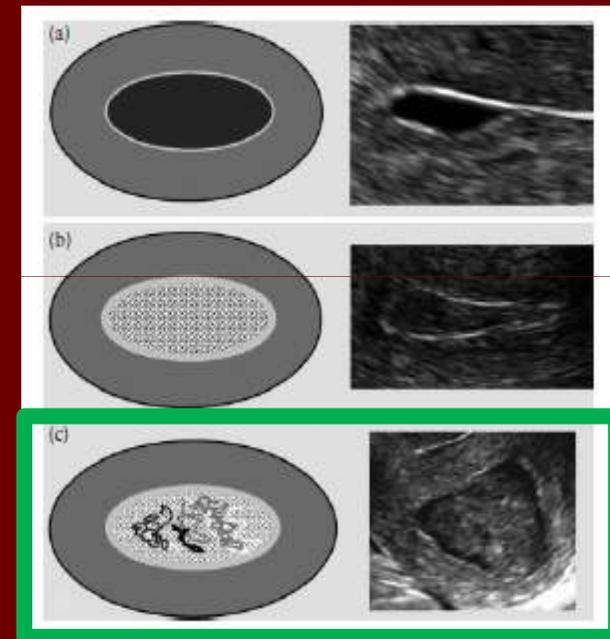
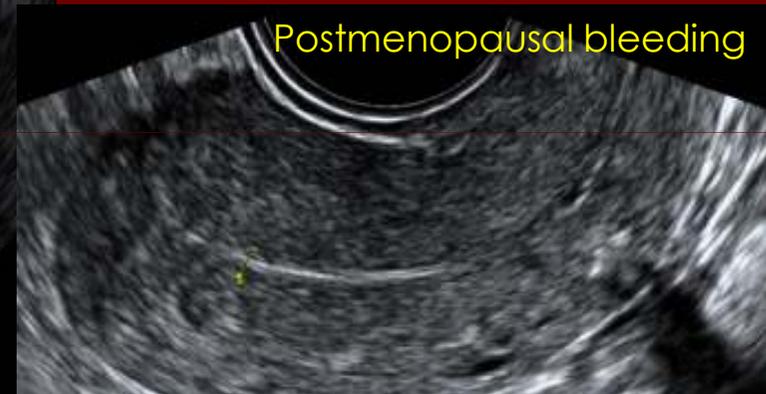
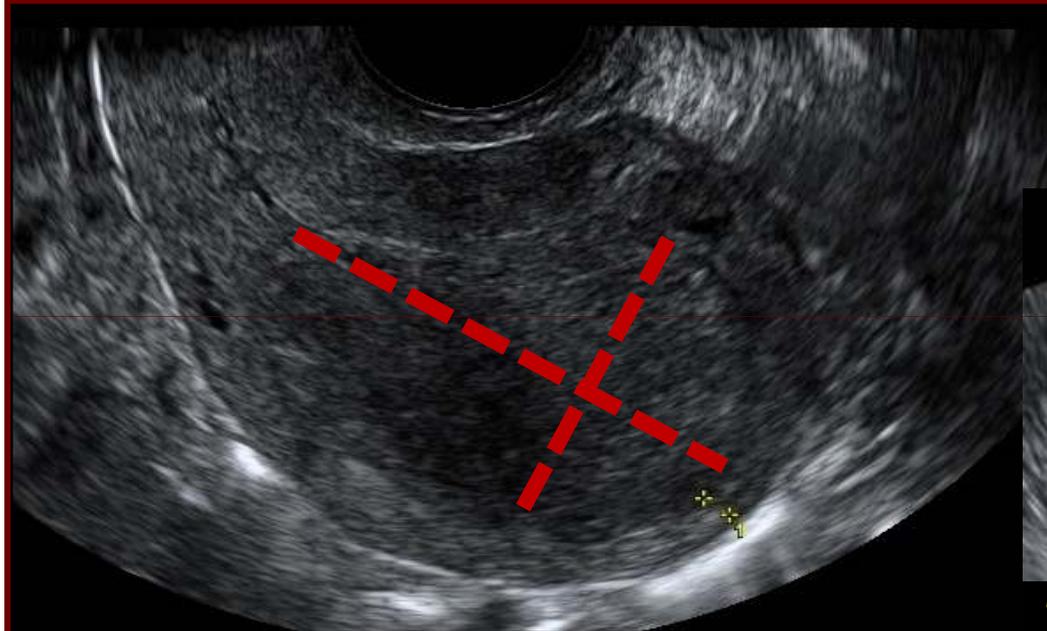


Figure 9 Intracavitary fluid: 'anechoic' or 'low-level' echogenicity (a), 'ground glass' appearance (b) and 'mixed' echogenicity (c).



Diametri



TV endometrium assessment ≤ 4 mm

[JAMA](#). 1998 Nov 4;280(17):1510-7.

Endovaginal ultrasound to exclude endometrial cancer and other endometrial abnormalities.

[Smith-Bindman R¹](#), [Kerlikowske K](#), [Feldstein VA](#), [Subak L](#), [Scheidler J](#), [Segal M](#), [Brand R](#), [Grady D](#).

[Obstet Gynecol](#). 2009 Feb;113(2 Pt 1):462-4. doi: 10.1097/AOG.0b013e31819930cc.

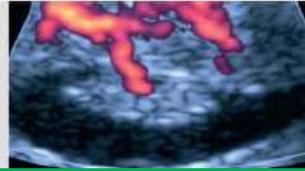
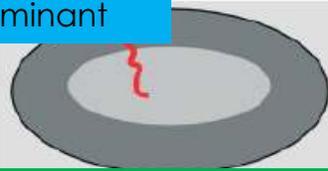
ACOG Committee Opinion No. 426: The role of transvaginal ultrasonography in the evaluation of postmenopausal bleeding.

[American College of Obstetricians and Gynecologists](#).



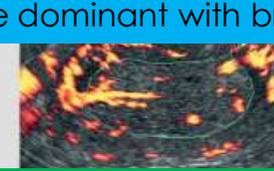
VASCULARIZZAZIONE – VASCULAR PATTERN

Single dominant

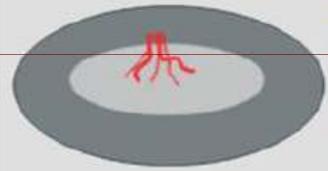


(b)

Single dominant with branching

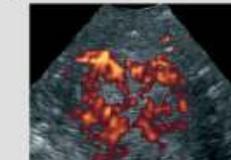
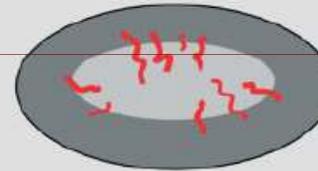


Multiple vessels with focal origin

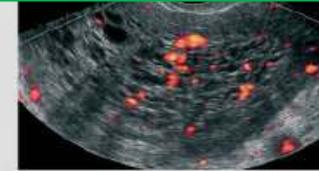
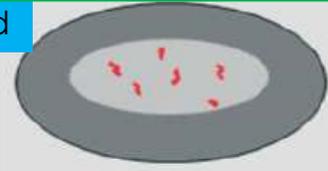


(d)

Multiple vessels with multifocal origin



Scattered



(f)

Circular

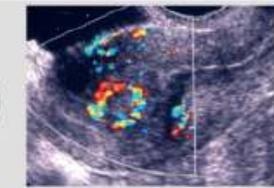
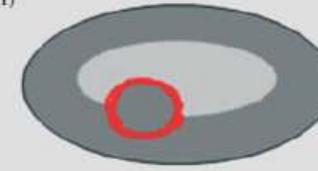
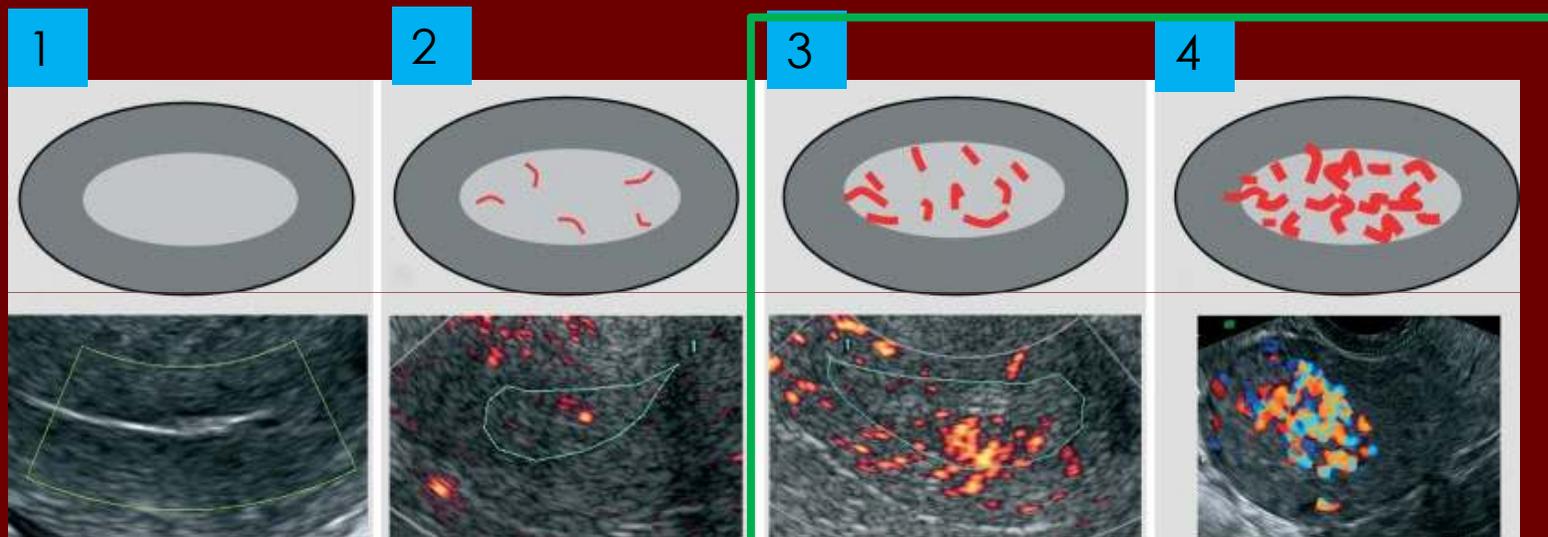


Figure 11 Vascular patterns: single 'dominant' vessel without branching (a) and with branching (b), multiple vessels with 'focal origin' (two or more vessels appear to share a common stem) (c) and with 'multifocal origin' at the myometrial–endometrial junction (d), 'scattered' vessels (dispersed color signals within the endometrium but without visible origin at the myometrial–endometrial junction) (e) and circular flow (f).

IETA group



VASCULARIZZAZIONE – COLOR SCORE

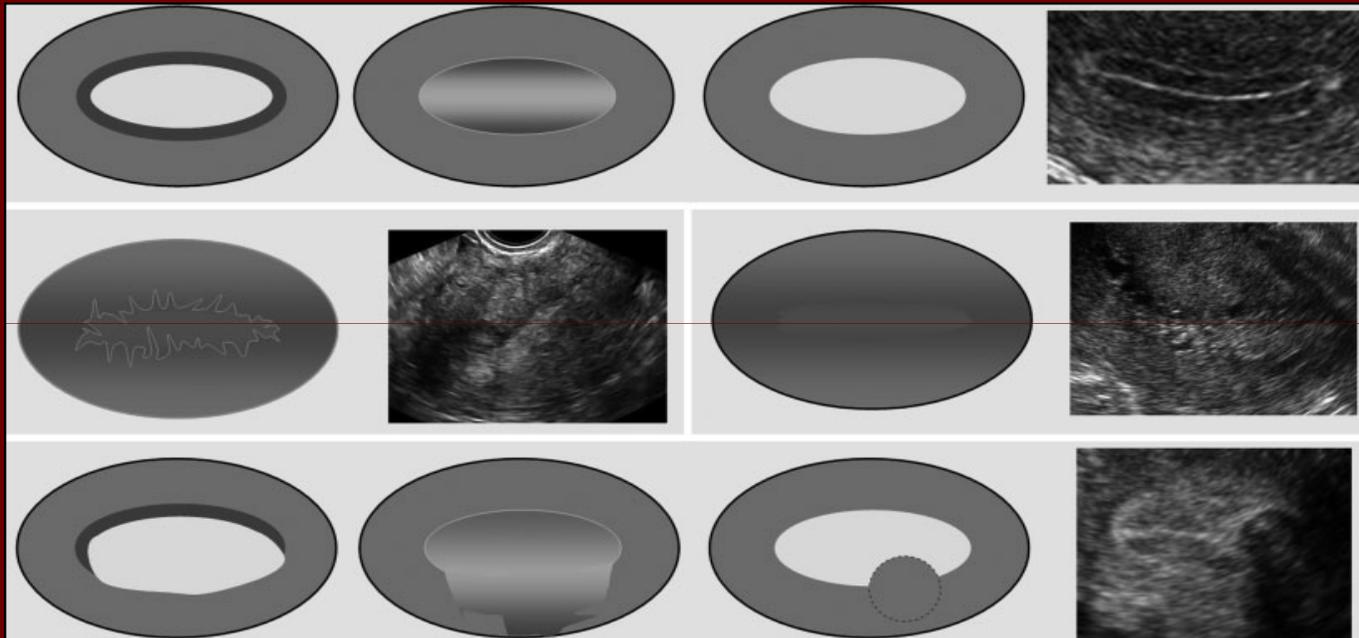


1= no color, i.e. no flow;
2 = minimal color,
3 = moderate color
4= abundant color

IETA group



Infiltrazione miometriale



Endometrial–myometrial junction: 'regular' (a), 'irregular' (b), 'interrupted' (c) (dark gray area denotes the endometrial–myometrial halo; in this case the halo is interrupted) and 'not defined' (d).

IETA group



Infiltrazione miometriale e cervicale

Ultrasound Obstet Gynecol. 2013 May 2. doi: 10.1002/uog.12499. [Epub ahead of print]

Evaluating myometrial and cervical invasion in women with endometrial cancer - comparing subjective assessment to objective measurement techniques.

Mascilini F, Testa AC, van Holsbeke C, Ameys L, Timmerman D, Epstein E.

Valutazione oggettiva:

L'accuratezza della valutazione soggettiva dell'infiltrazione miometriale è risultata pari o superiore a quella dei parametri oggettivi di misurazione

Valutazione soggettiva:

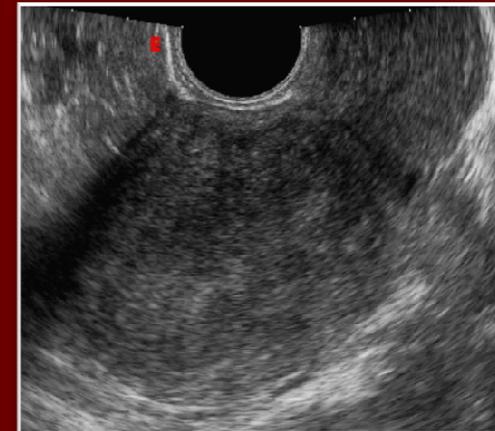
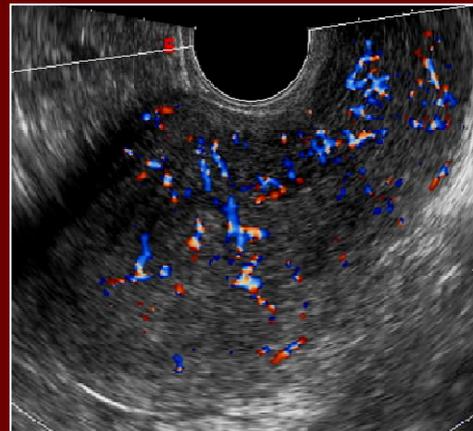
- Infiltrazione miometriale >50%; Infiltrazione <50%
- Infiltrazione cervicale



Valutazione linfonodale



Rapporti con gli organi vicini





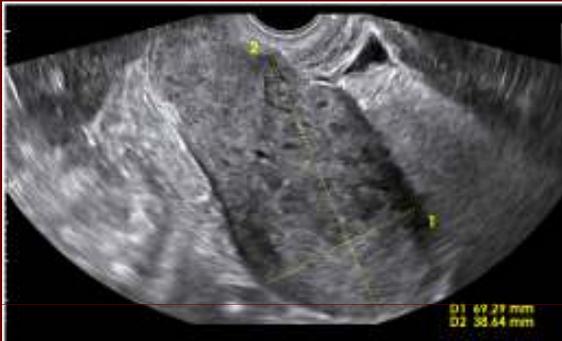
Stadiazione

La stadiazione del carcinoma endometriale è chirurgica

- **Trattamento del carcinoma endometriale include:**
 - **isterectomia totale o radicale**
 - **annessiectomia bilaterale**
 - **washing peritoneale**
 - **con o senza linfadenectomia pelvica e paraortica**



Pz A.M. 50 anni





LPT: Isterectomia radicale, annessiectomia monolaterale, linfadenectomia pelvica e lomboaortica, biopsia peritoneo prevescicale, biopsia omentale

EIE: Adenocarcinoma endometrioides che infiltra la cervice uterina ed infiltrazione neoplastica dell'ovaio di destra. Margini vaginali negativi.

EID: Adenocarcinoma endometriale G2 di tipo endometrioides, N+ pelvici e lomboaortici, omento negativo, margini vaginali negativi

STADIO FIGO IIIC



Adenocarcinoma endometriale - Stadiazione FIGO 2009

Stadio I		Tumore limitato al corpo dell'utero
	IA	Nessuna infiltrazione o < 1/2 del miometrio
	IB	Infiltrazione > 1/2 del miometrio
Stadio II		Tumore esteso allo stroma cervicale, ma non fuori dall'utero
Stadio III		Estensione locale o regionale
	IIIA	Estensione alla sierosa uterina, o alle ovaie
	IIIB	Estensione alla vagina o ai parametri
	IIIC	Estensione ai linfonodi pelvici o lombo-aortici
	IIIC1	Linfonodi pelvici positivi
	IIIC2	Linfonodi lombo-aortici positivi, indipendentemente dai pelvici
Stadio IV		Estensione alla mucosa vescicale o intestinale o metastasi a distanza
	IV A	Estensione alla mucosa vescicale o intestinale
	IV B	Metastasi a distanza

