



## IBD e neoplasie

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## Tecniche d'esame US

- Transaddominale
- Eco-Doppler
- Transrettale
- Ecoendoscopica
- Idrocolonsonografia
- Mezzi di contrasto

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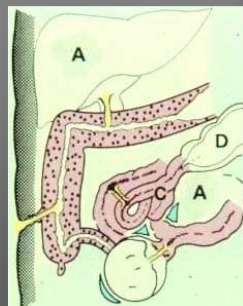
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## Morbo di Crohn Semeiotica ecografica

- Ispessimento trasmurale
- Ispessimento mesenteriale
- Stenosi, ascessi, fistole
- Anse dilatate, ripiene di liquido, conglomerate



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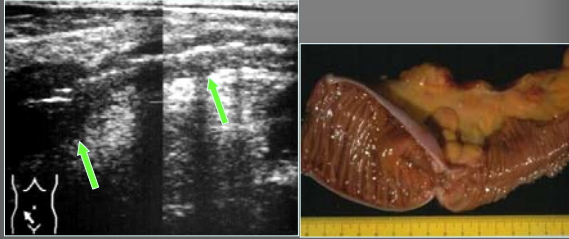
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## Morbo di Crohn



TERMINAL ILEUM

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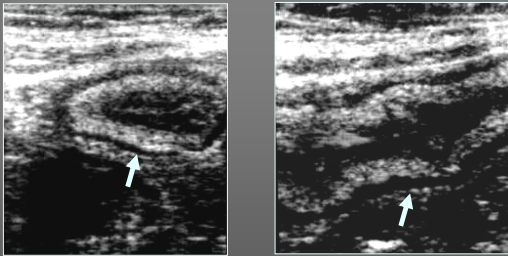
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## Morbo di Crohn



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SANDWICH

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## Morbo di Crohn

correlazioni del quadro US

- Attività della malattia
- Storia naturale
- Complicanze

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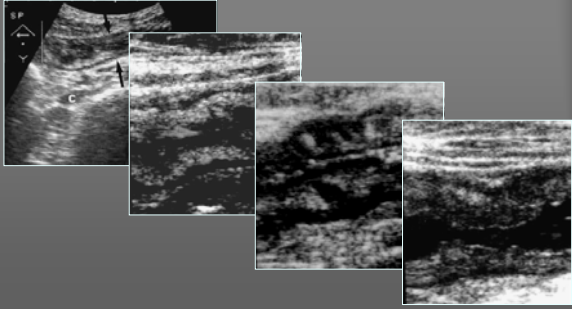
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## Ispessimento parietale Storia naturale e attività




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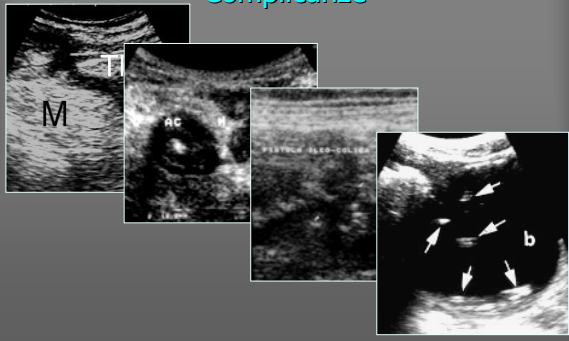
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## Morbo di Crohn Complicanze




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## Complicanze del morbo di Crohn Accuratezza dell'ecografia

	<i>Gasche, Gut 1999</i>		<i>Maconi, Dig Dis Sc 1996</i>	
	sensibilità	specificità	sensibilità	specificità
Stenosi	100%	91%	66.6%	95.5%
Fistole	87%	90%	74.4%	93.1%
Ascessi	100%	92%	83.3%	94.2%

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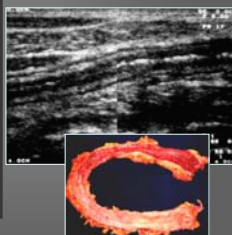
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## Colite ulcerosa Semeiotica ecografica

- Ispezzimento superficiale e continuo
- Moderato restringimento del lume
- Pareti sottili, austra ridotte, abnorme meteorismo (megacolon tossico)



Arienti V et al, Am J Gastroenterol. 1996

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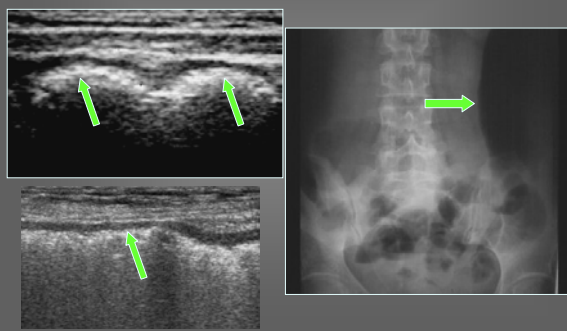
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## Megacolon tossico aspetto ecografico




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## High Resolution US in Ulcerative Colitis sensitivity and site of inflammation

SITE OF UC	ULTRASONOGRAPHY		SCINTIGRAPHY		US SENSITIVITY %
	positive	negative	positive	negative	
Rectum-sigmoid	30	2	32	0	30/32 (94%)
Descending	28	4	31	1	28/31 (90%)
Transverse	21	11	24	8	21/24 (88%)
Ascending	14	18	17	15	14/17 (82%)
<b>TOTAL</b>	<b>93</b>	<b>35</b>	<b>104</b>	<b>24</b>	<b>93/104 (89%)</b>

Arienti V. et al, Am J Gastroenterol 1996

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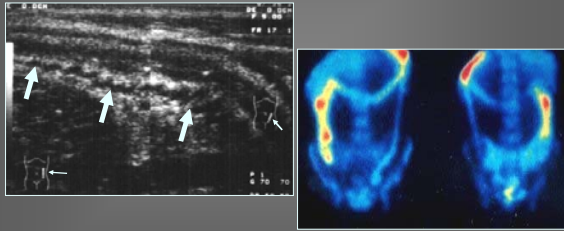
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## Estensione CU Correlazione US-Sc




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## CU: ispessimento parietale Correlazione con l'attività

Worlicek, JCU 1987

Arienti, AJG 1996

Maconi, SJG 1999

**dati concordanti**

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## Diagnosi di IBD Confronto fra le tecniche

	Sensibilità	Specificità	Accuratezza
Clisma del tenue	100.0%	96.7%	98.6%
US	88.4%	93.3%	90.4%
CT	90.7%	83.3%	87.7%
Scintigrafia	79.1%	86.7%	82.2%

*Tarjan, European Journal of Radiology 2000*

	Sensibilità	Specificità	Accuratezza
MR	50%	91%	73%
US	82%	97%	89%

*Pascu, Inflamm Bowel Dis. 2004*

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## Fasi iniziali del m. di Crohn Sensibilità delle tecniche

	sensibilità
Clisma del tenue	100.0% (18/18)
US	66.7% (12/18)
CT	75.0% (12/14)
Scintigrafia	83.3% (15/18)

Tarjan, European Journal of Radiology 2000

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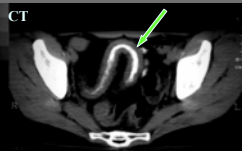
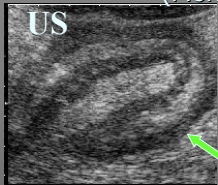
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## Integrazione delle tecniche (Morbo di Crohn)



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## IBD: ruolo dell'esame US

- Indagine di I livello
- Diagnosi di IBD
  - Estensione
  - Attività
  - Complicanze
- Diagnosi differenziale
- Follow-up

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## CARCINOMA ESOFAGEO

- **Raro**
- **Sintomi:**  
dispepsia  
disfagia  
calo ponderale



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## CARCINOMA ESOFAGEO

### Ruolo dell'ecografia transcutanea:

- Esame limitato al tratto cervicale e sottodiaframmatico
- Utile nella stadiazione



Trasparenza del tratto sottodiaframmatico

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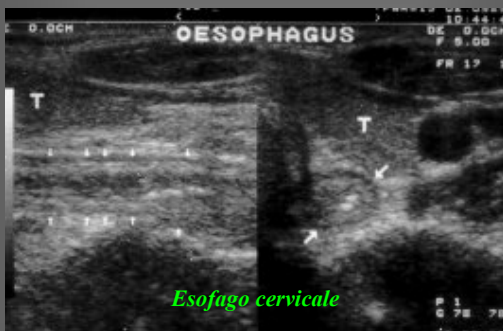
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## ESOFAGO NORMALE Aspetto ecografico



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## TUMORI DELLO STOMACO

### Sintomi

- Dispepsia
  - durata: > 30 gg.
  - paziente : età > 40 aa. , *H. pylori*<sup>+vo</sup>
- calo ponderale
- vomito, disfagia
- anemia, emorragia digestiva

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## TUMORI DELLO STOMACO

### Aspetti ecografici

#### ADENOCARCINOMA

- ispessimento parietale
  - alta sensibilità, scarsa specificità*
- perdita della stratificazione parietale
- riduzione del lume
- assenza di peristalsi
- adenopatie perigastriche

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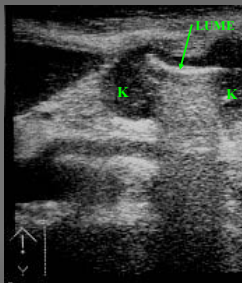
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## TUMORI DELLO STOMACO



**ADENOCARCINOMA GASTRICO**  
*Forma stenotante*

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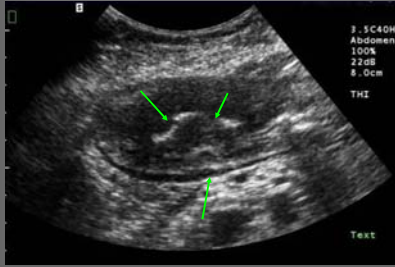
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## TUMORI DELLO STOMACO



### ADENOCARCINOMA GASTRICO

*Stenosi, ispessimento parietale, Perdita della stratificazione*

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## TUMORI DELLO STOMACO



### ADENOCARCINOMA GASTRICO

*Parziale ed irregolare ispessimento parietale*

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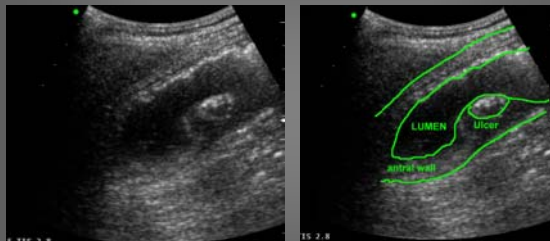
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## TUMORI DELLO STOMACO



### ADENOCARCINOMA GASTRICO

*Forma vegetante ulcerata*

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## TUMORI DELLO STOMACO



**LINFOMA GASTRICO**  
*Ispessimento della sottomucosa*



**LINFOMA GASTRICO**  
*Infiltrazione a tutto spessore e linfonodi locoregionali*

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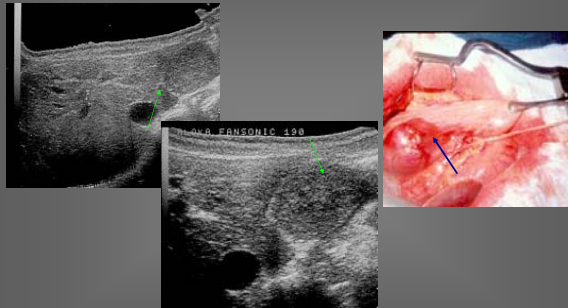
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## TUMORI DELLO STOMACO



**LEIOMIOMA GASTRICO**

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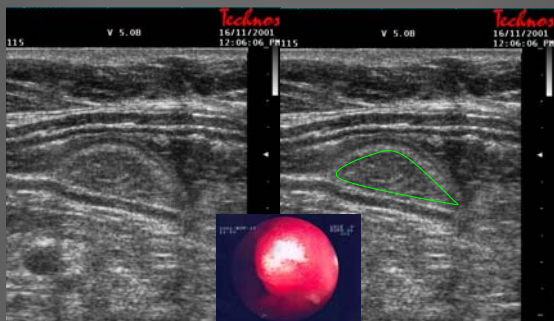
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## TUMORI DELLO STOMACO



**LEIOMIOMA GASTRICO**

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## TUMORI DELLO STOMACO




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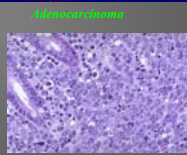
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## TUMORI DEL TENUE

✓ Rari (1-2 % dei tumori del canale alimentare)

### Istotipo

- Adenocarcinomi (52 %)
- Sarcomi (20%)
- Linfomi (15 %)
- Carcinoidi (7%)



Quintana, Ultrastructure of the Stomach

Fig. 10.10.1

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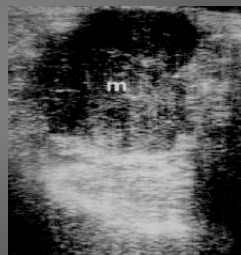
## TUMORI DEL TENUE

### Aspetti ecografici

✓ difficile riconoscimento

- a “massa”
- a “bersaglio” (*stenosante, simil-linfoma*)
- pseudocistico (*carcinoidi*)
- segni di ostruzione (*fase avanzata*)

Bozkurt, J Clin Ultrasound 1994



aspetto a “massa”

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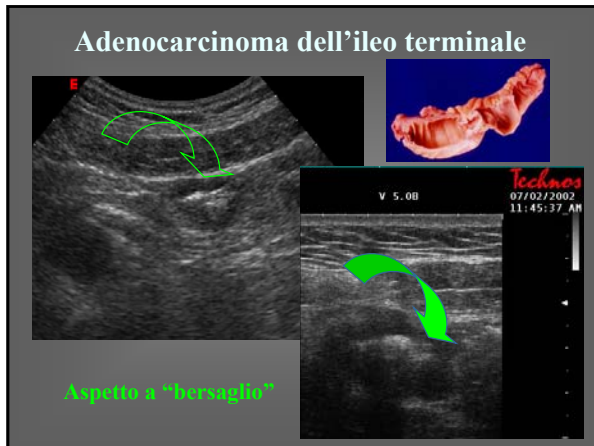
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### TUMORI DEL COLON-RETTO

- seconda causa di morte per cancro
- età media alla diagnosi: 60-70 anni
- rapporto M/F= 2:1 (neoplasie rettali)

**Istologia**

- adenocarcinomi (98%)

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### TUMORI DEL COLON-RETTO sintomi

- astenia
- perdita di peso
- anemia sideropenica
- diarrea

- rettorragia
- anemia

- sanguinamenti occulti
- alterazioni dell'alvo
- dolore crampiforme al quadrante addominale inferiore sn

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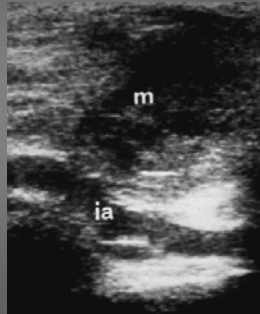
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## TUMORI DEL COLON-RETTO

### Aspetti ecografici

#### COLON DESTRO

- forme vegetanti
- immagine di massa
- difficile riconoscimento (gas)
- hydrocolonsonography (?)
- linfadenopatie regionali



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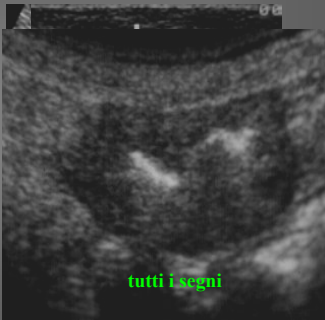
## TUMORI DEL COLON-RETTO

### Aspetti ecografici

#### COLON SINISTRO SIGMA - RETTO

- forme stenosanti
- immagine "a bersaglio"
- ispessimento eccentrico
- perdita stratificazione
- disomogeneità (necrosi)
- segni di ostruzione

Lim. AJR 1998



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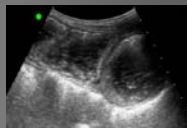
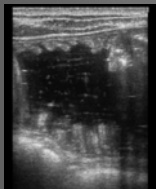
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## TUMORI DEL COLON-RETTO

### segni di ostruzione



dilatazione delle anse a monte

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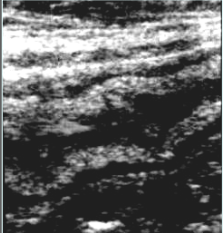
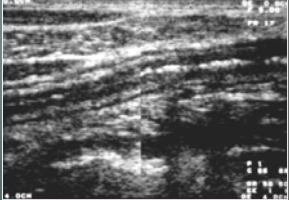


## IBD

*diagnosi differenziale*

M. di Crohn

Colite ulcerosa

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## IBD e Tumori

*diagnosi differenziale*

Forme benigne

Forme maligne

- ispessimento graduale      - ispessimento brusco
- strati simmetrici            - strati asimmetrici
- lume centrale                - lume eccentrico

ECCEZIONE: linfoma

*Di Candio G et al, AJR 1986*

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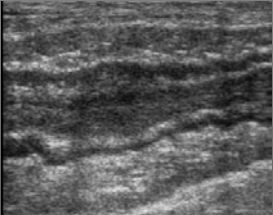

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## IBD e Tumori

*diagnosi differenziale*

Colite ulcerosa

Neoplasia intestinale

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## US bowel wall thickening Differential diagnosis

- Crohn's disease
- Ulcerative colitis
- Colitis (non IBD)
- Tuberculosis
- Actinomycosis
- Amyloidosis
- Diverticulitis
- Vasculitis
- Tumour
  - primary/metastatic
  - lymphoma/sarcoma
  - carcinoid
- Bowel wall oedema
- Bowel wall bleeding

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## BIOPSIA

### INDICAZIONI

- RX e/o colonscopia non diagnostiche o controindicate
- Biopsia endoscopica non risolutiva (lesioni sottomucose/stenosi)
- Integrazione dello studio US (?)

### CONTROINDICAZIONI

- dilatazione delle anse a monte per ostruzione meccanica

### RISULTATI

Sensibilità: 80 %      Specificità: 95-100 %  
Accuratezza diagnostica: 80%

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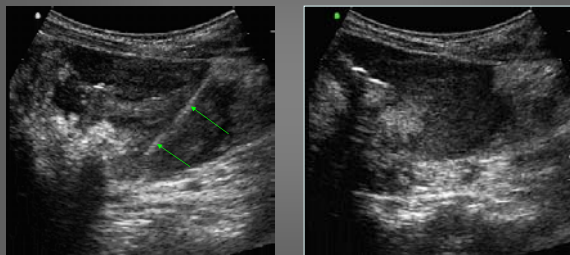
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## BIOPSIA



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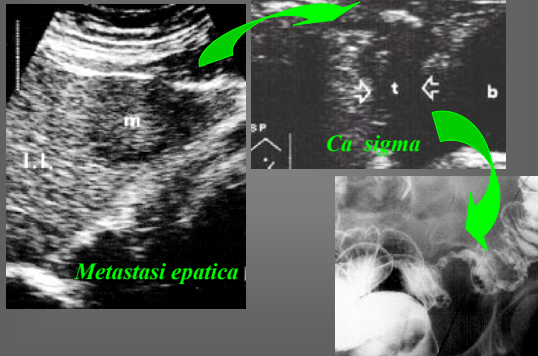
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## REPERTO OCCASIONALE



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### Centro di Ecografia Internistica, Interventistica e Vascolare



[www.ecografiabologna.org](http://www.ecografiabologna.org)

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