

TRACTO GASTROINTESTINAL

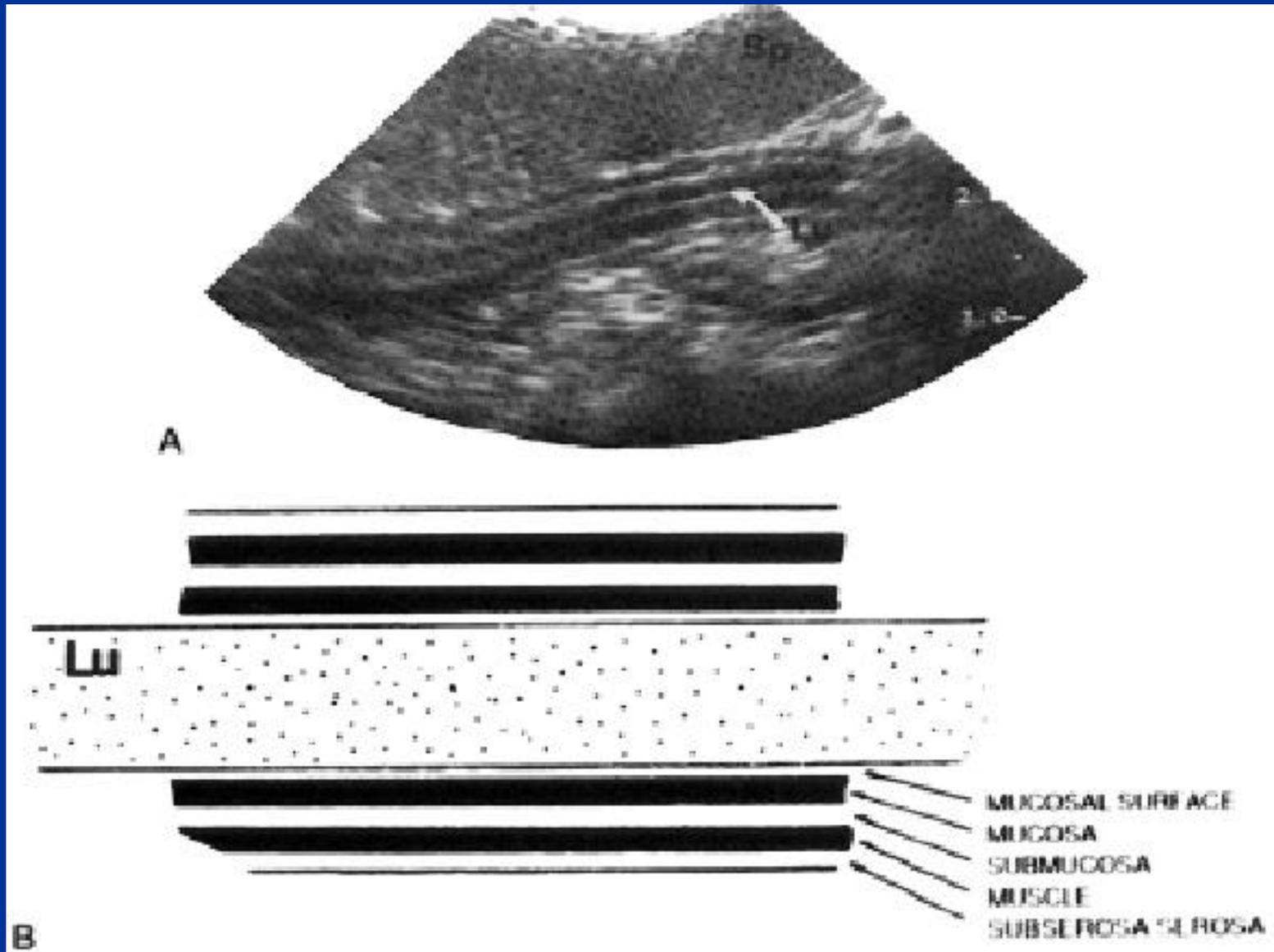
Dra. Alicia López Bermúdez

Centro Veterinario para el Diagnóstico por Imágenes y la Terapia Complementaria

Tacto gastrointestinal

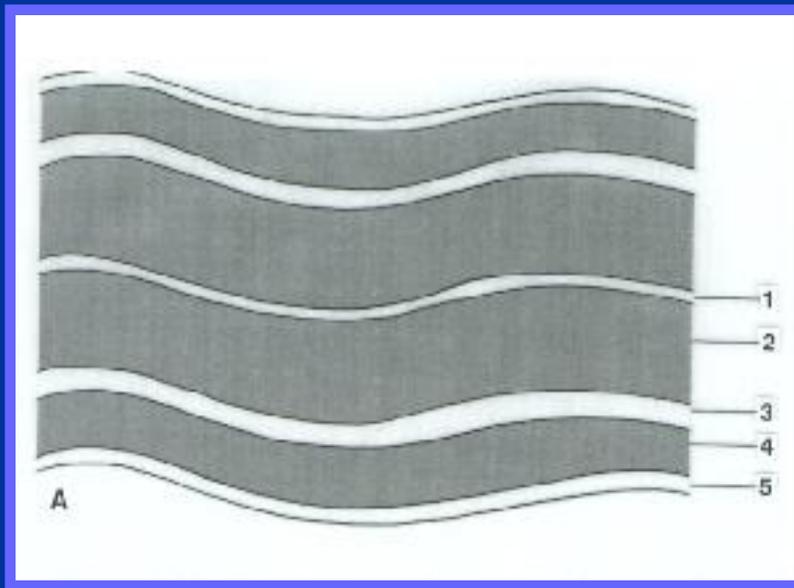
- Características de patrón y posición:
 - Estómago
 - Duodeno
 - Colon
 - Intestino delgado
 - Ileum – gato
 - Unión ileo - cólica

Tacto gastrointestinal

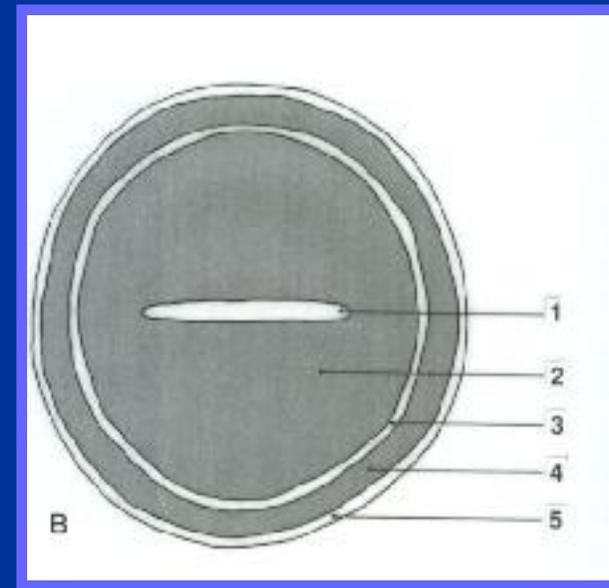


Evaluación Ultrasonográfica Intestinal

Plano sagital



Plano transverso

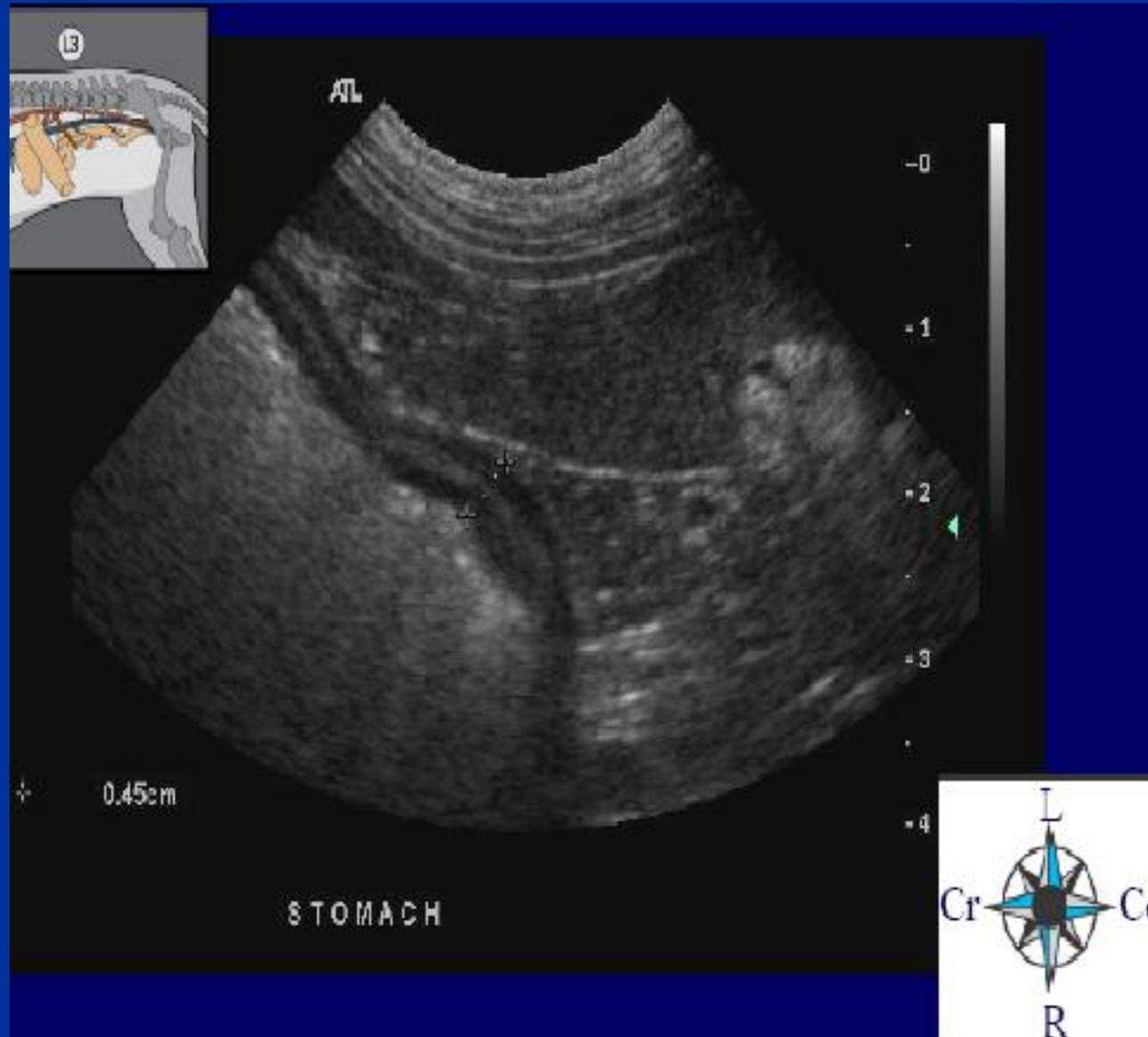


Green 1996

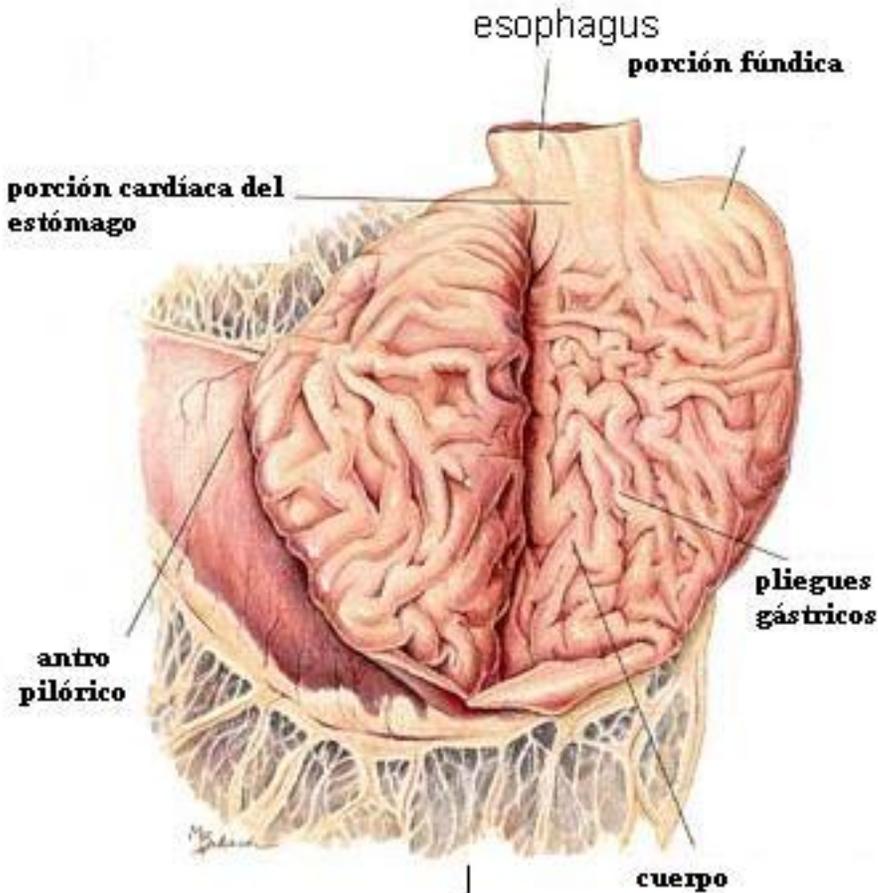
- 1- sup. mucosa
- 2- mucosa
- 3- submucosa
- 4- muscular
- 5- serosa



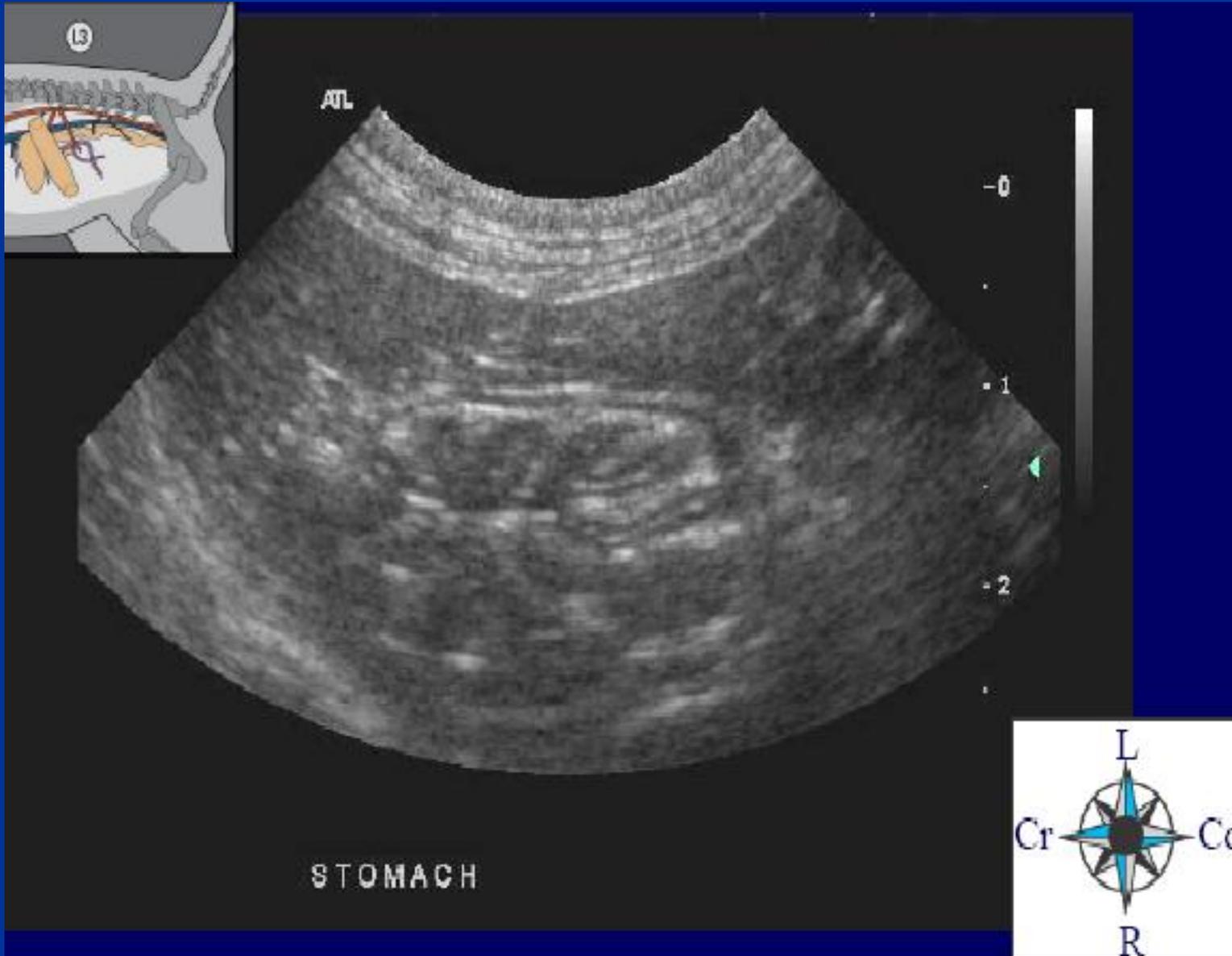
Pared gástrica normal

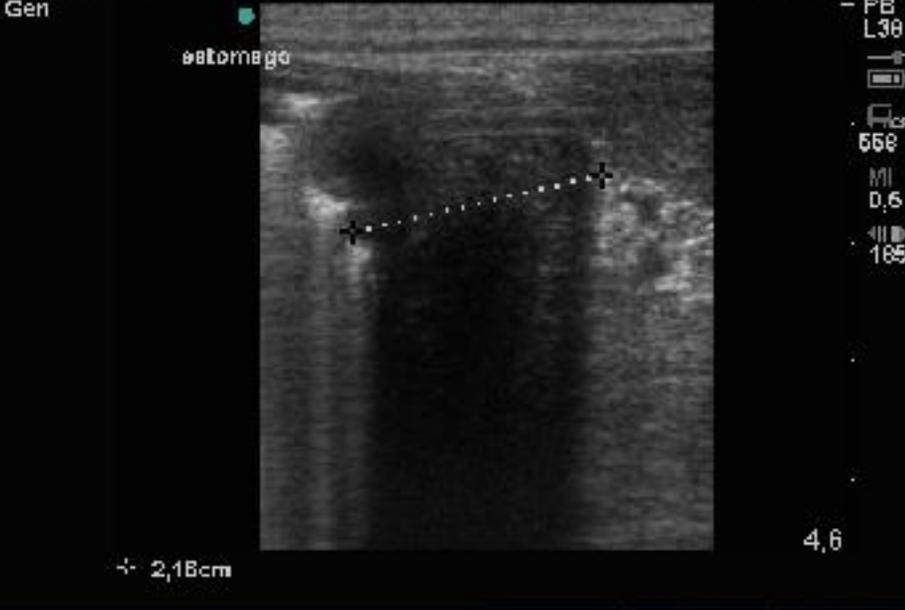
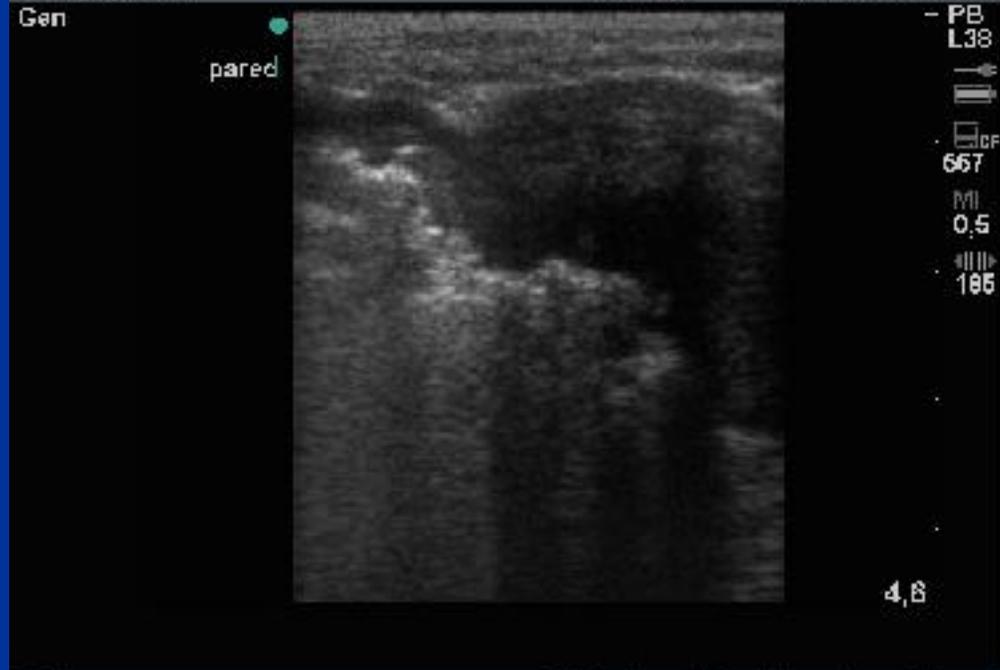


Estómago

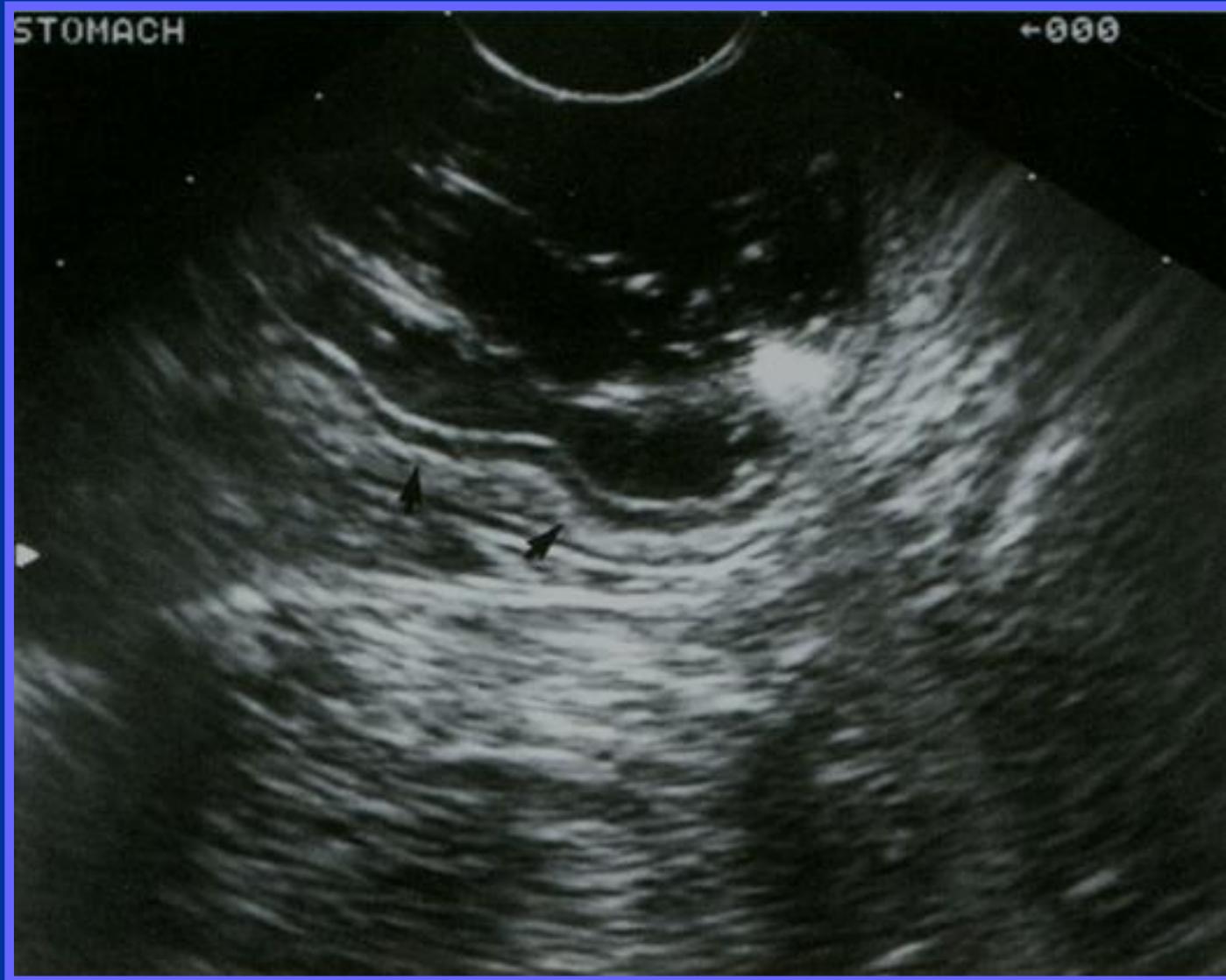


Estómago - gato





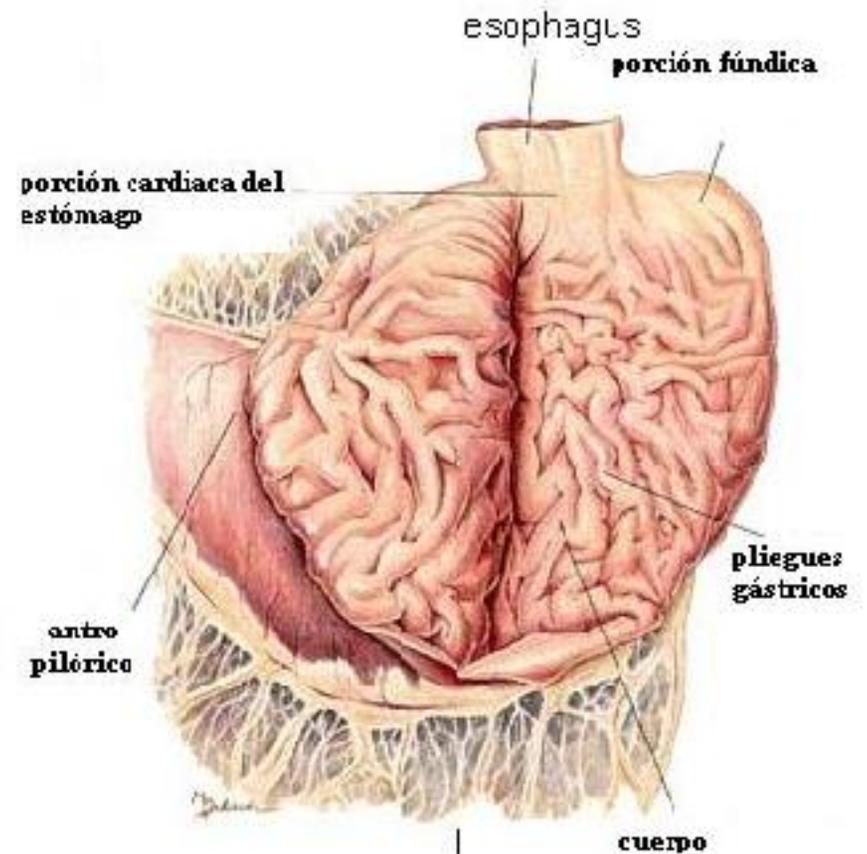
Anatomía Ultrasonográfica



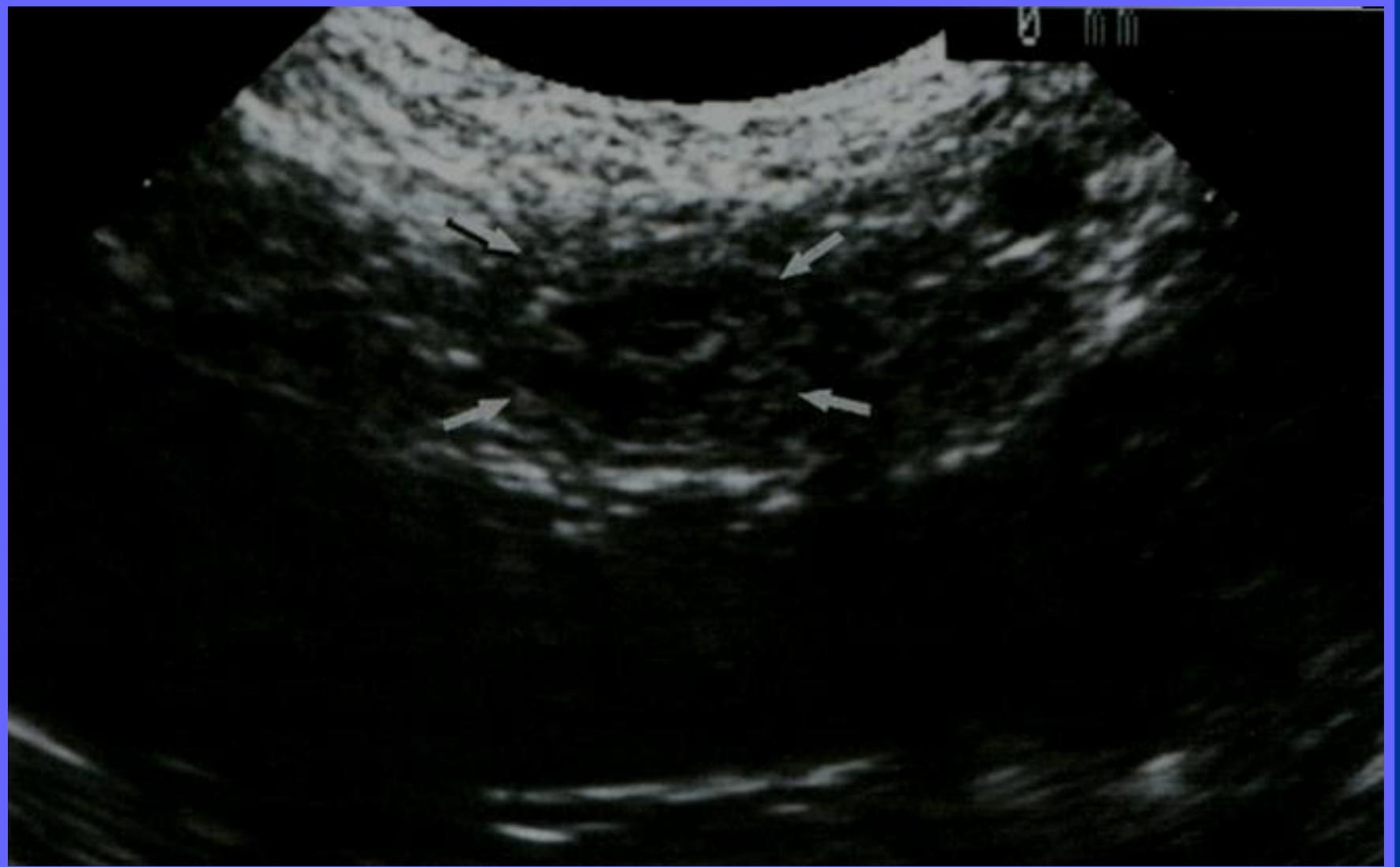
Anatomía Ultrasonográfica



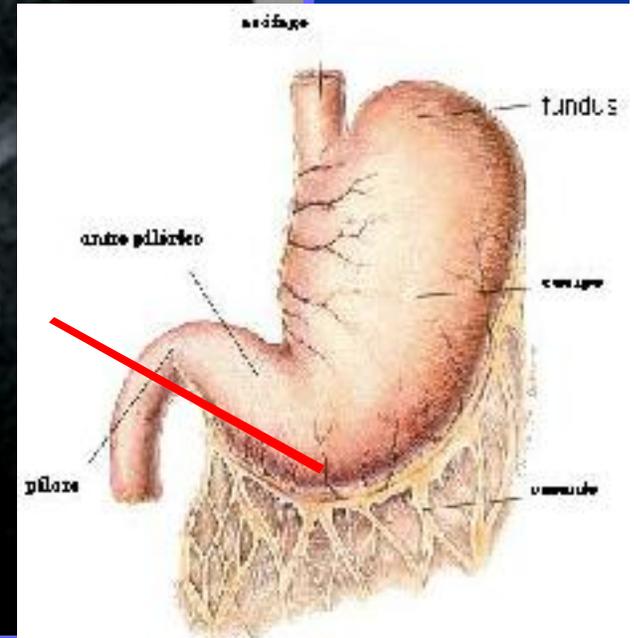
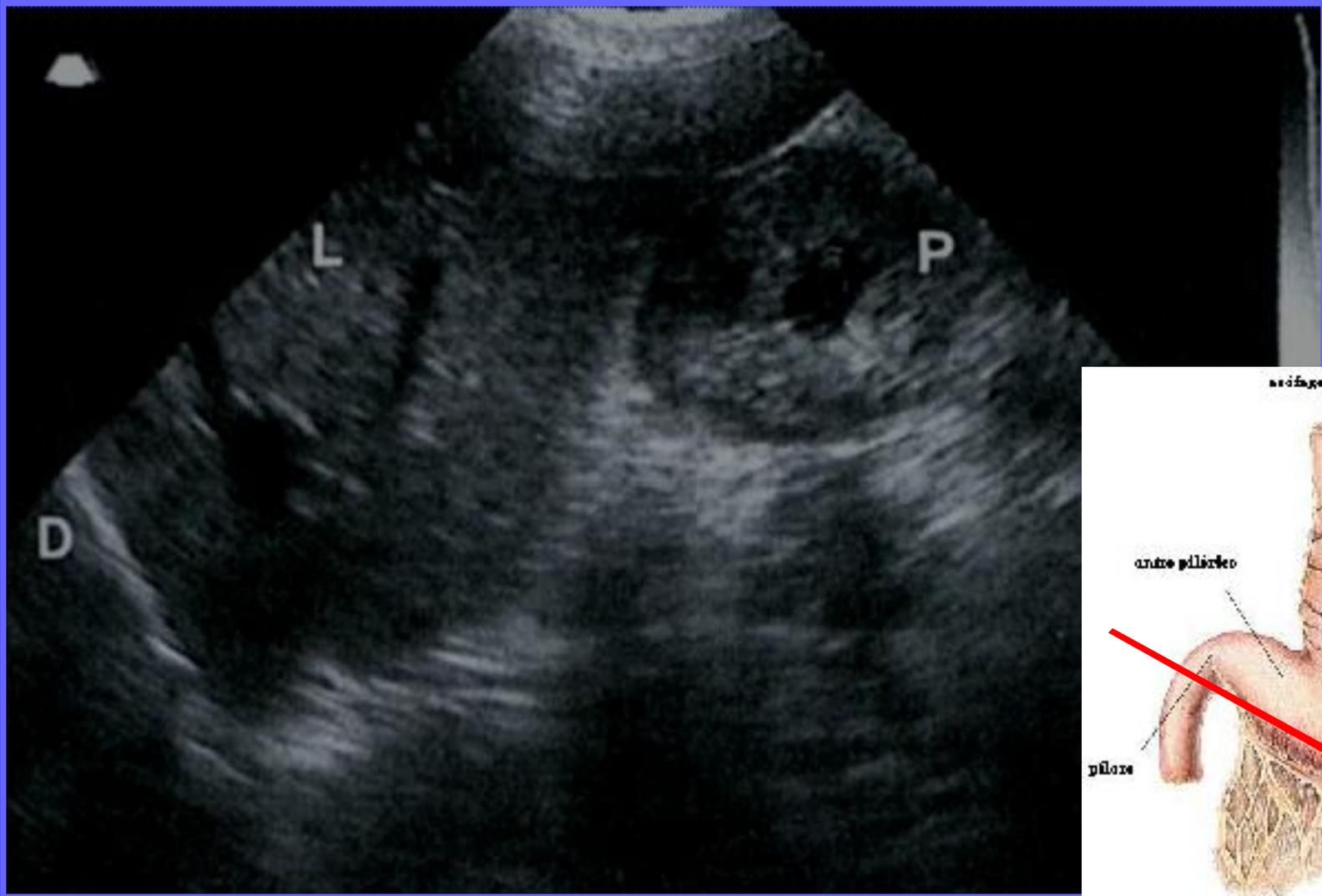
Anatomía Ultrasonográfica



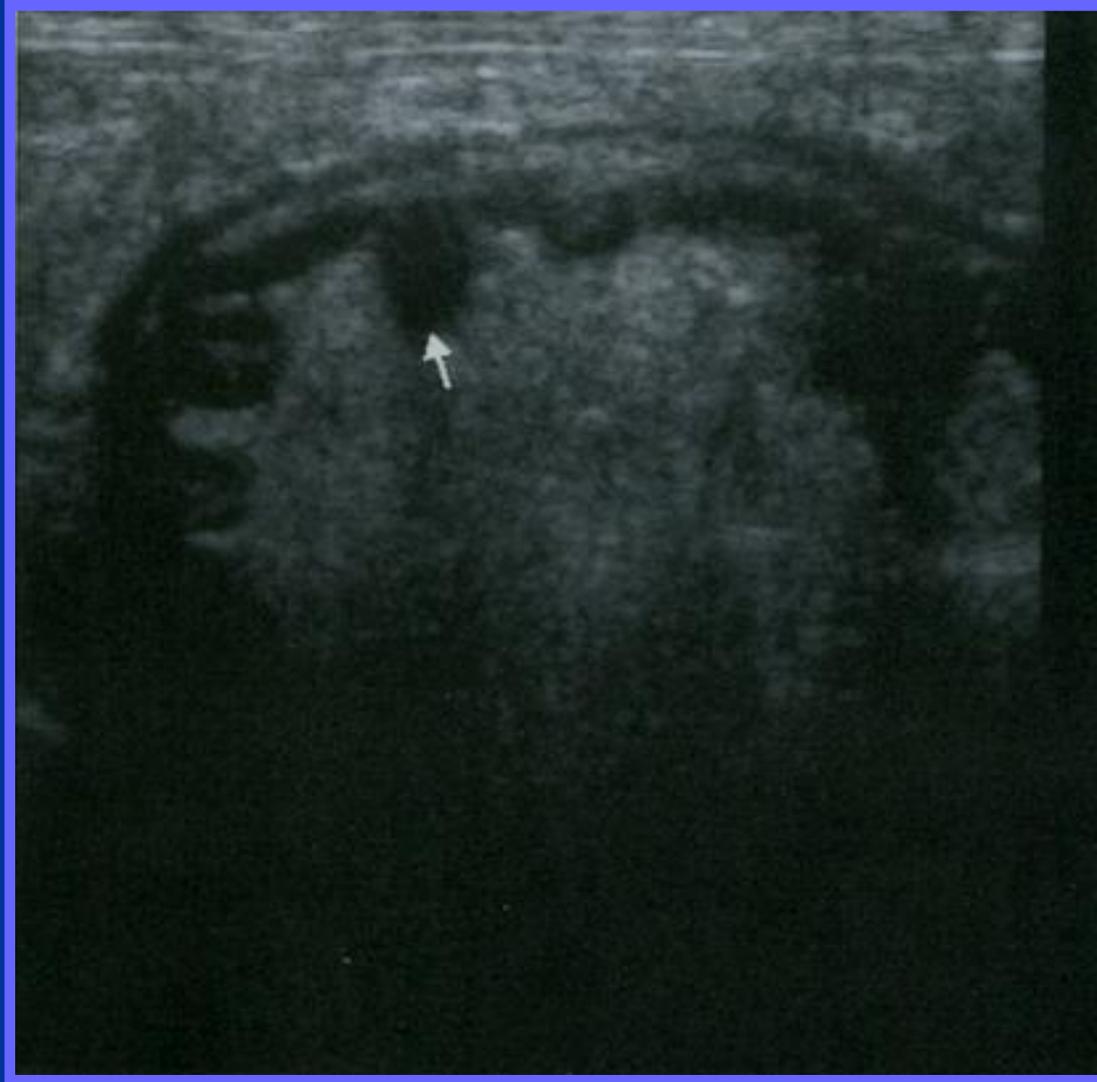
Anatomía Ultrasonográfica



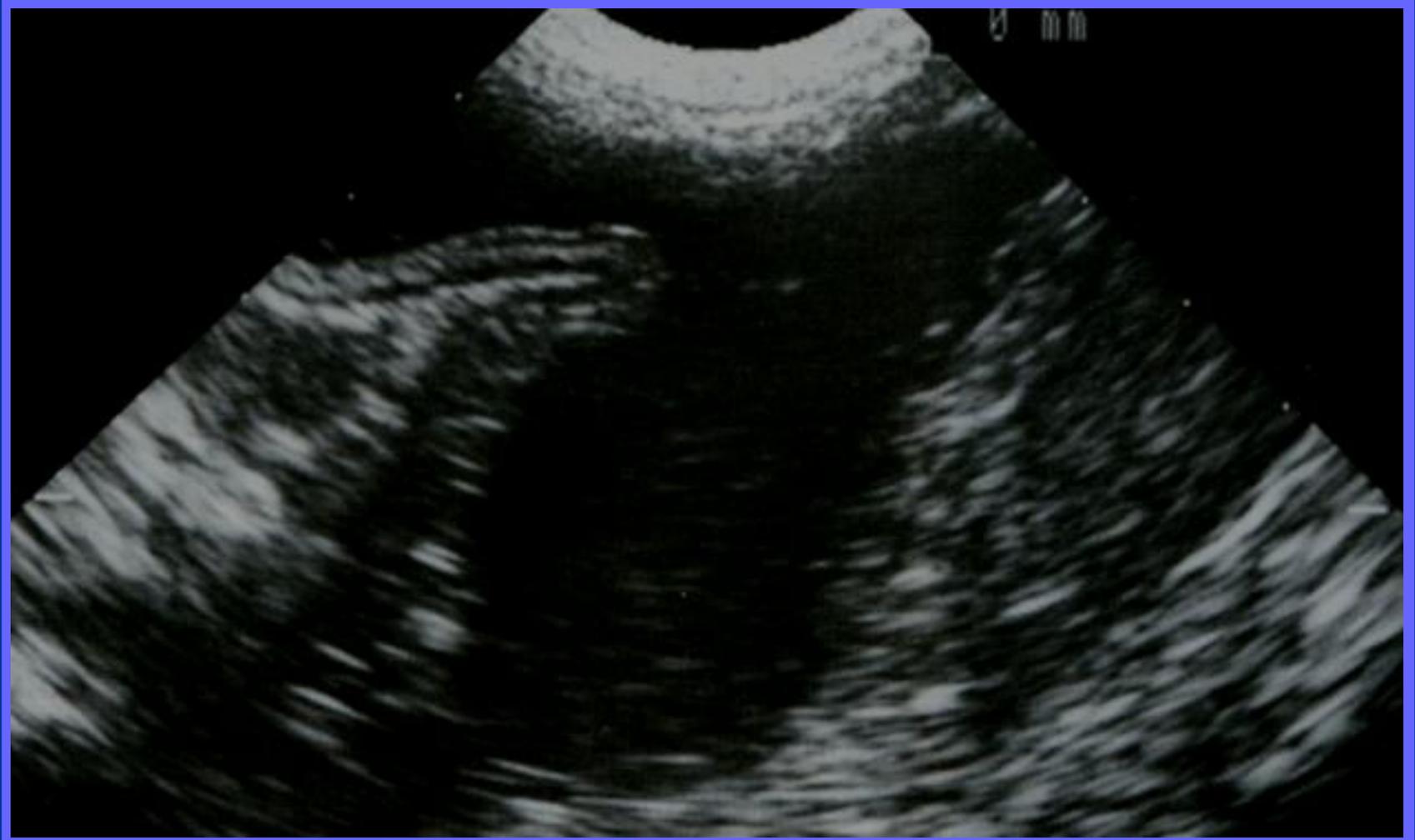
Anatomía Ultrasonográfica



Anatomía Ultrasonográfica



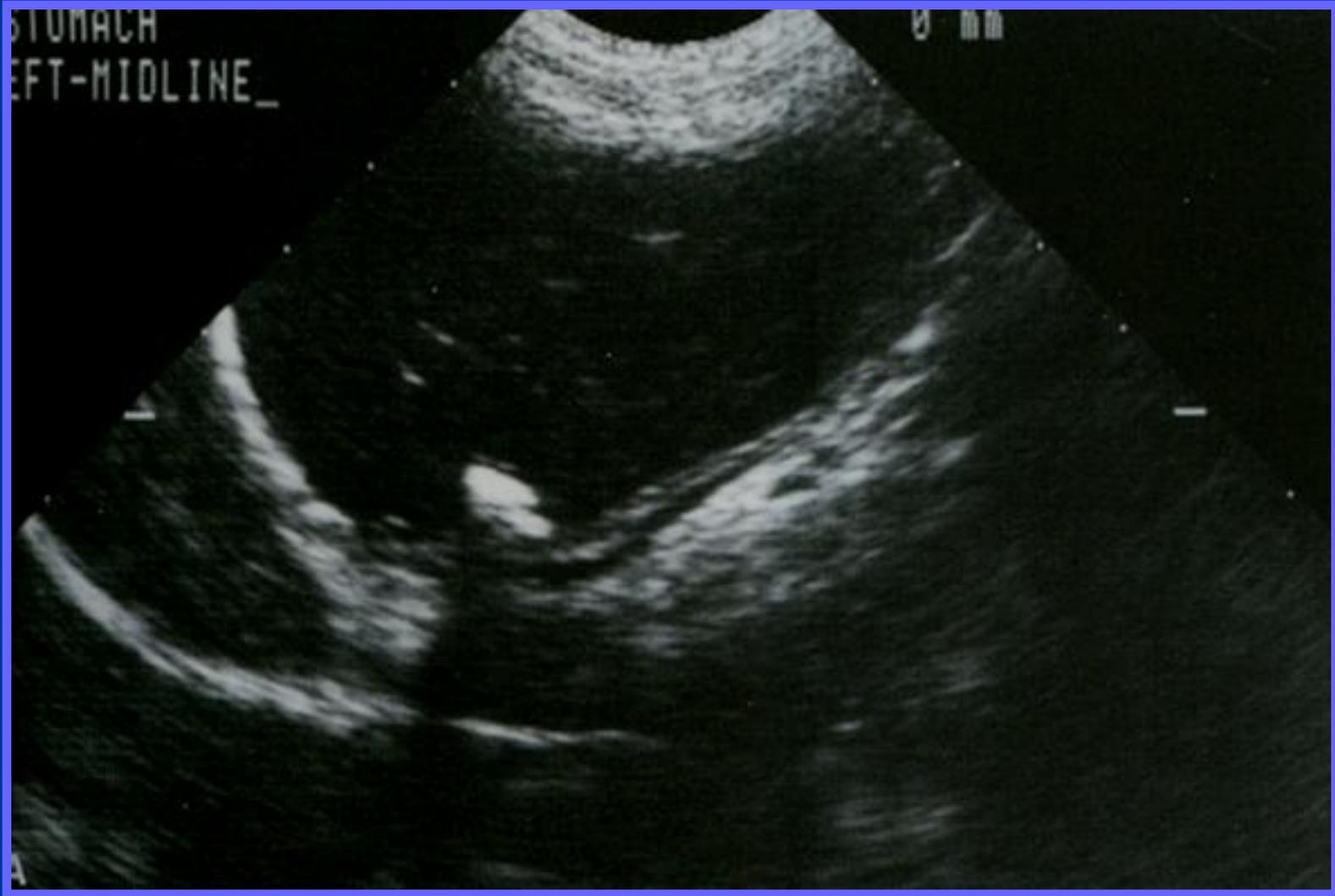
Anatomía Ultrasonográfica



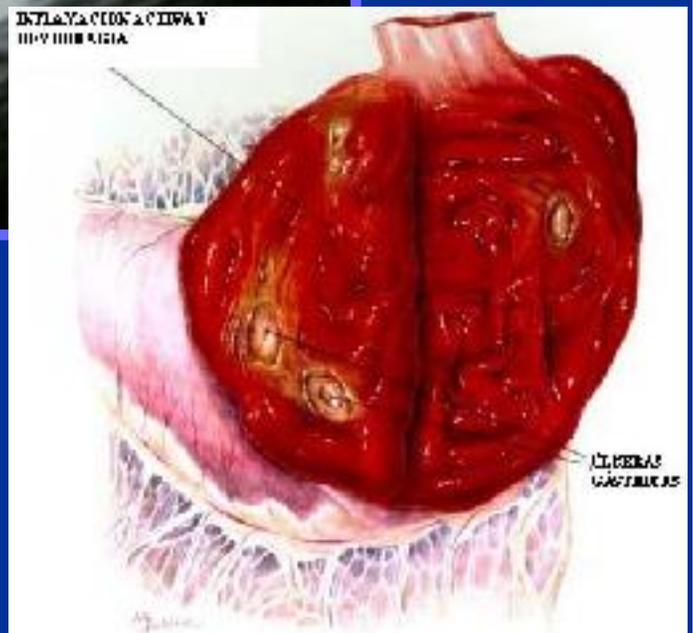
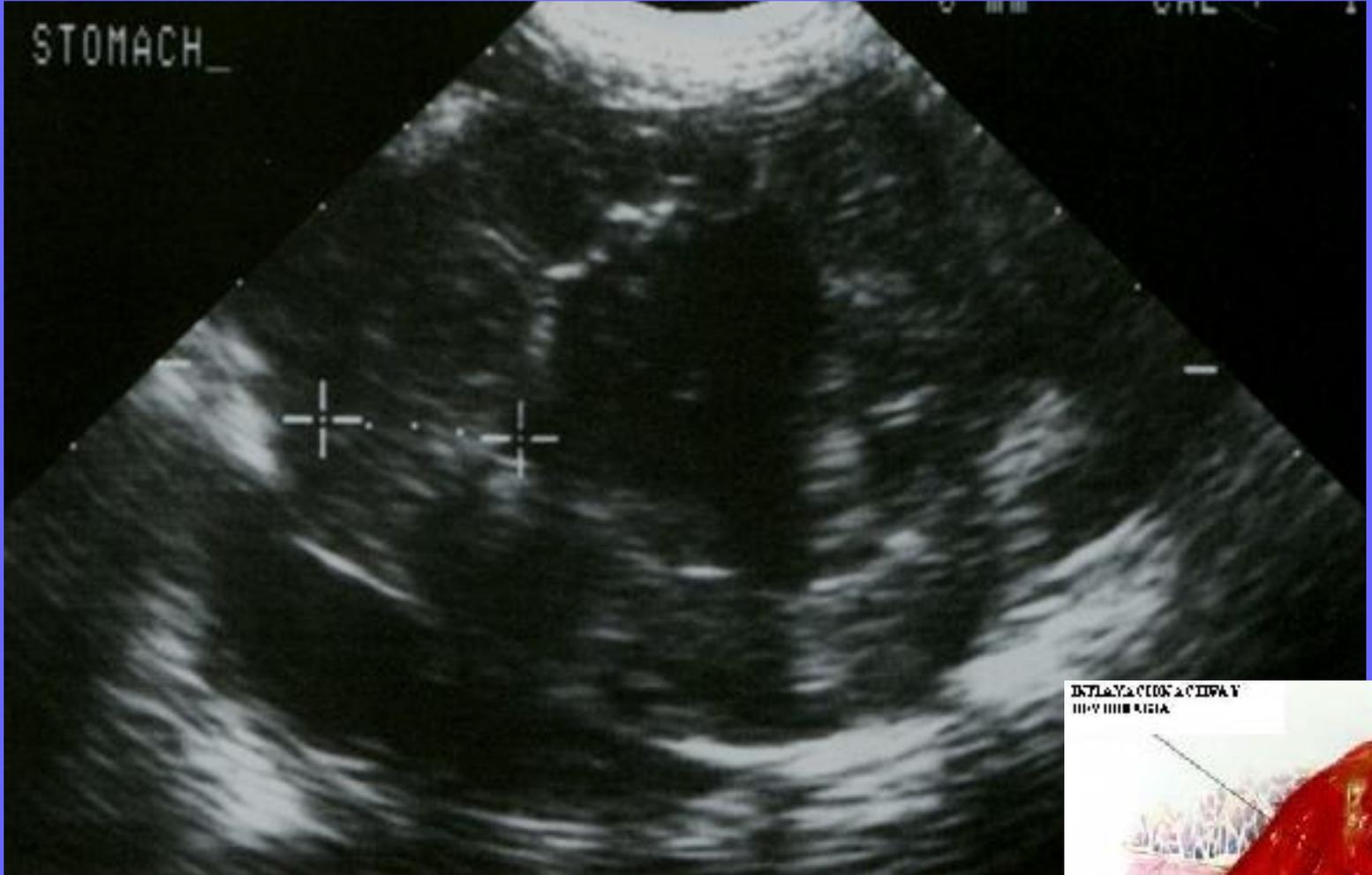
Anatomía Ultrasonográfica del Estómago



Alteraciones Ultrasonográficas



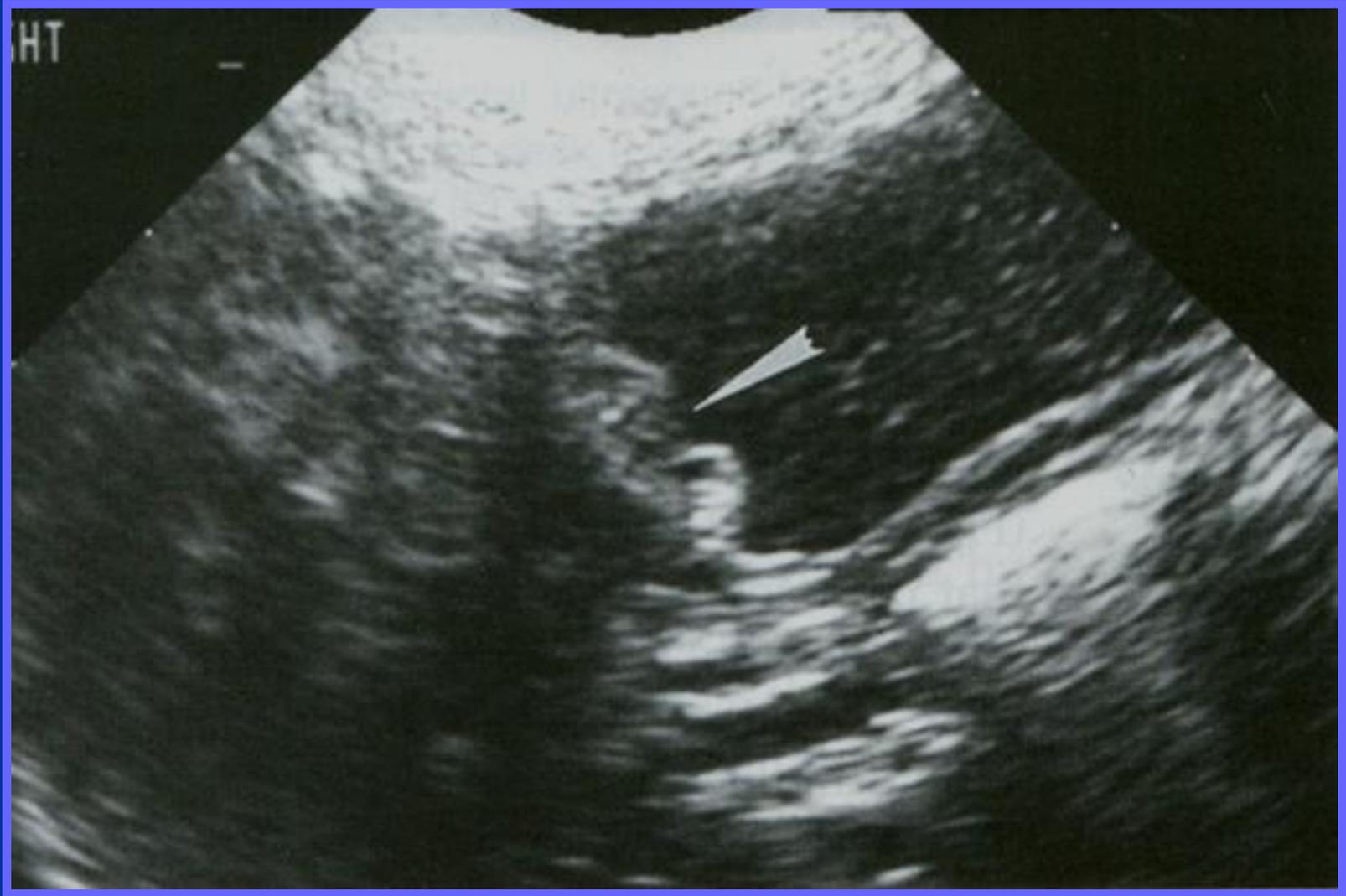
cuerpo extraño



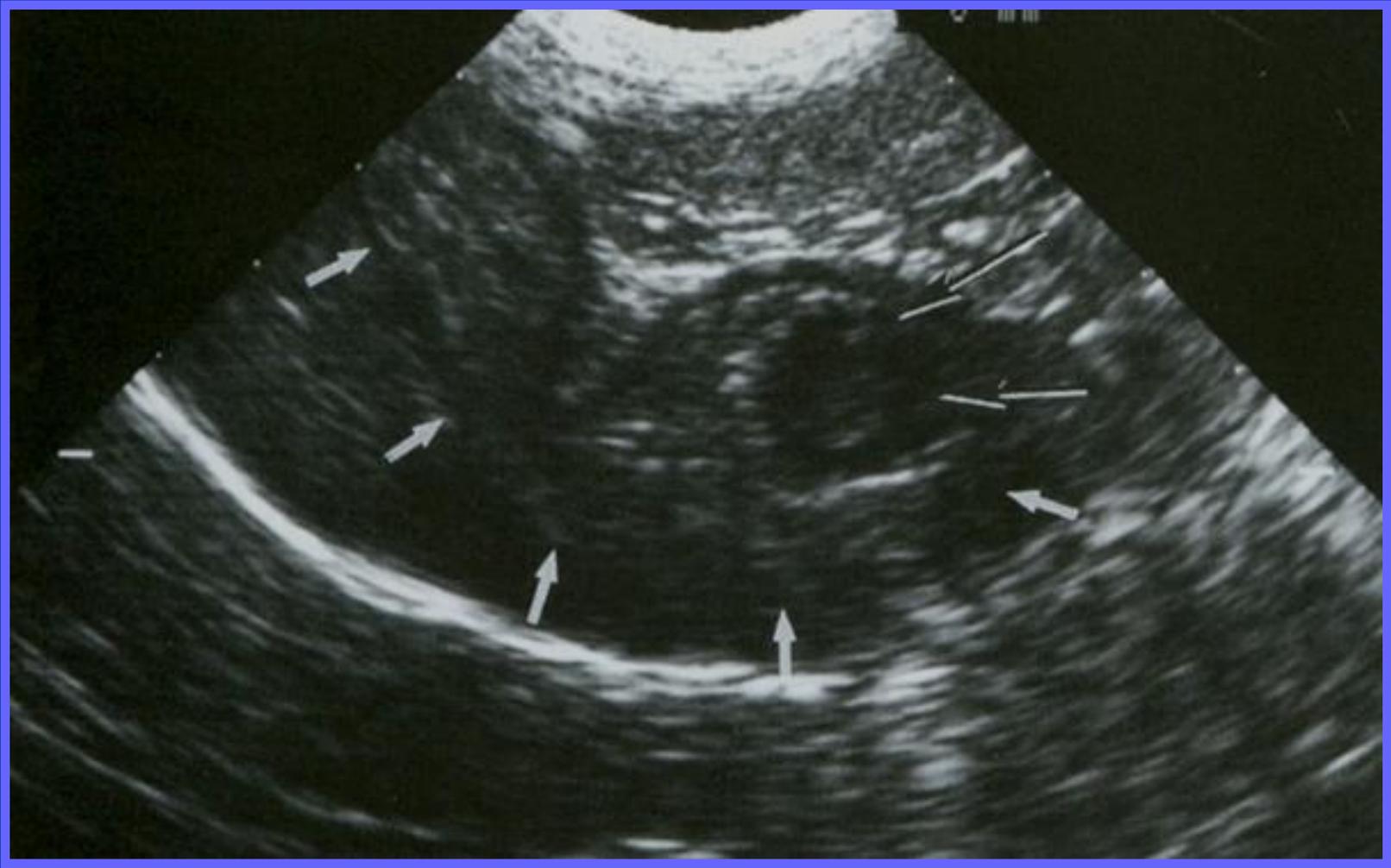
Gastritis



Hipertrofia del Píloro

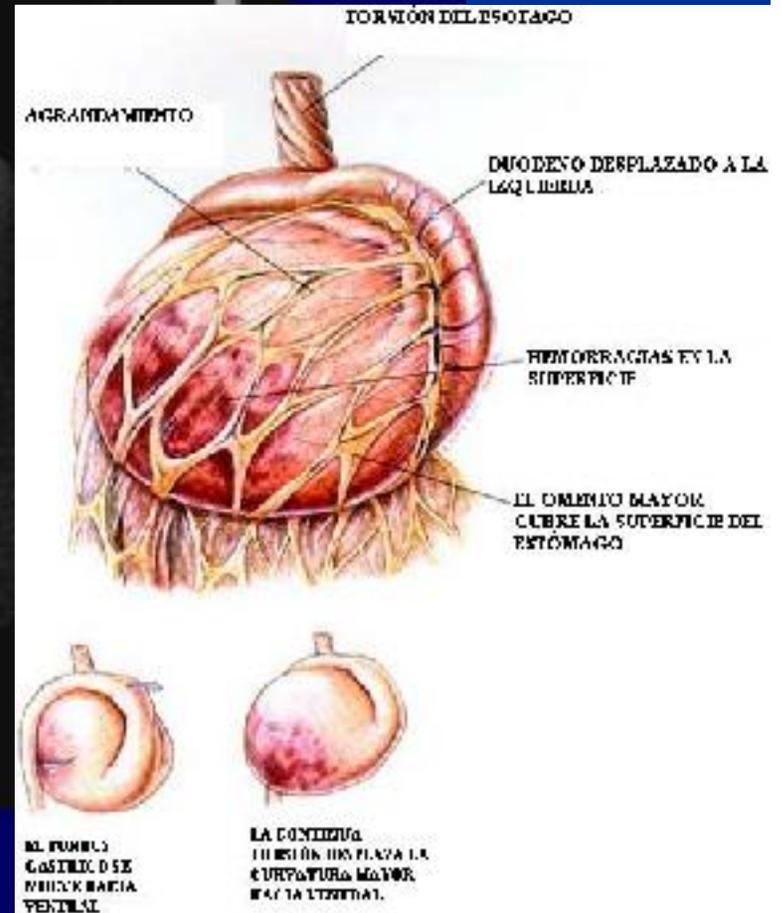


Hipertrofia del píloro



leiomyoma

Distensión gástrica crónica



Tacto gastrointestinal

■ Gatos:

■ Ileum

- Pared submucosa gruesa.

■ Estómago

- Submucosa – hiperecoica – grasa

■ Colon

- Podrían no verse todas las capas.

- Intestino delgado – normalmente no hay mucha cantidad de fluido en el lumen.

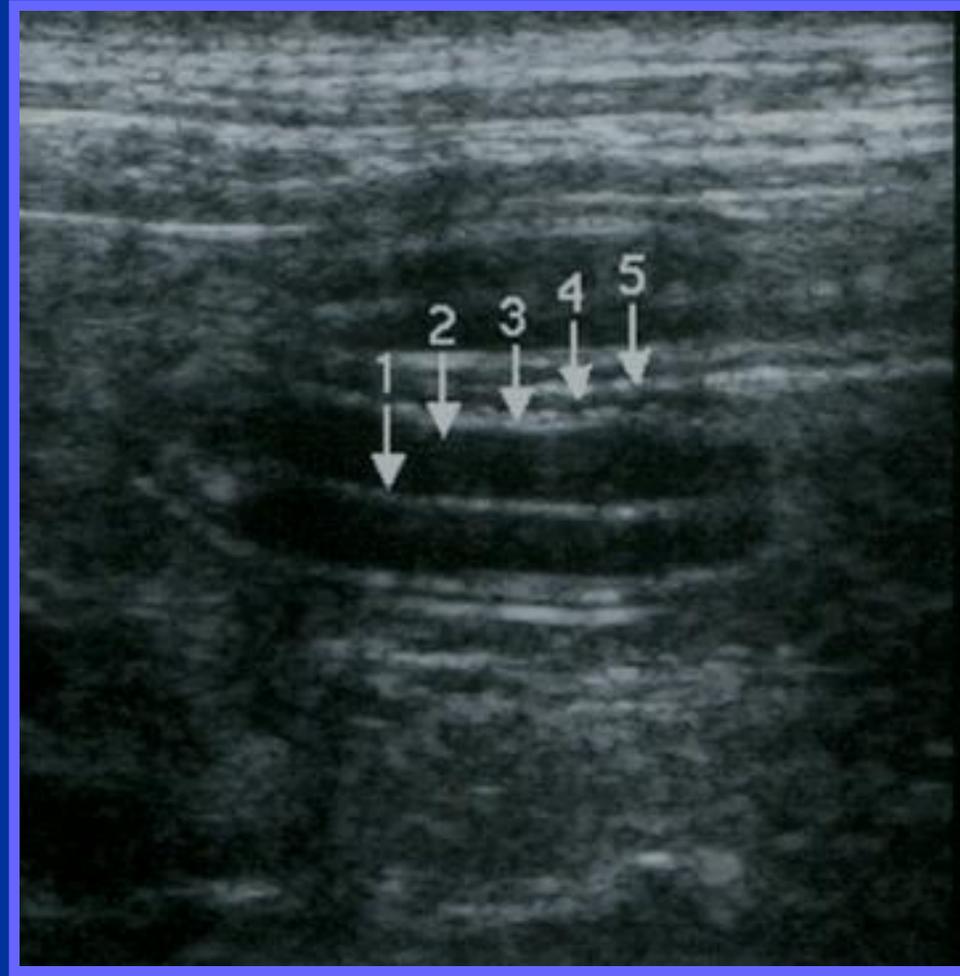
Medicaciones

GI TRACT	Dog	Cat
Stomach	3 to 5 mm	2 mm (FAT)
Duodenum	2 to 5 mm Varies with size	2 to 3 mm
Duodenal Papilla		2.9 to 5.5 mm
Small Intestine	2 to 5 mm	2.1 mm
Ileum	2 to 4 mm	3 to 5 mm
Colon	1 to 3 mm	1.7 mm

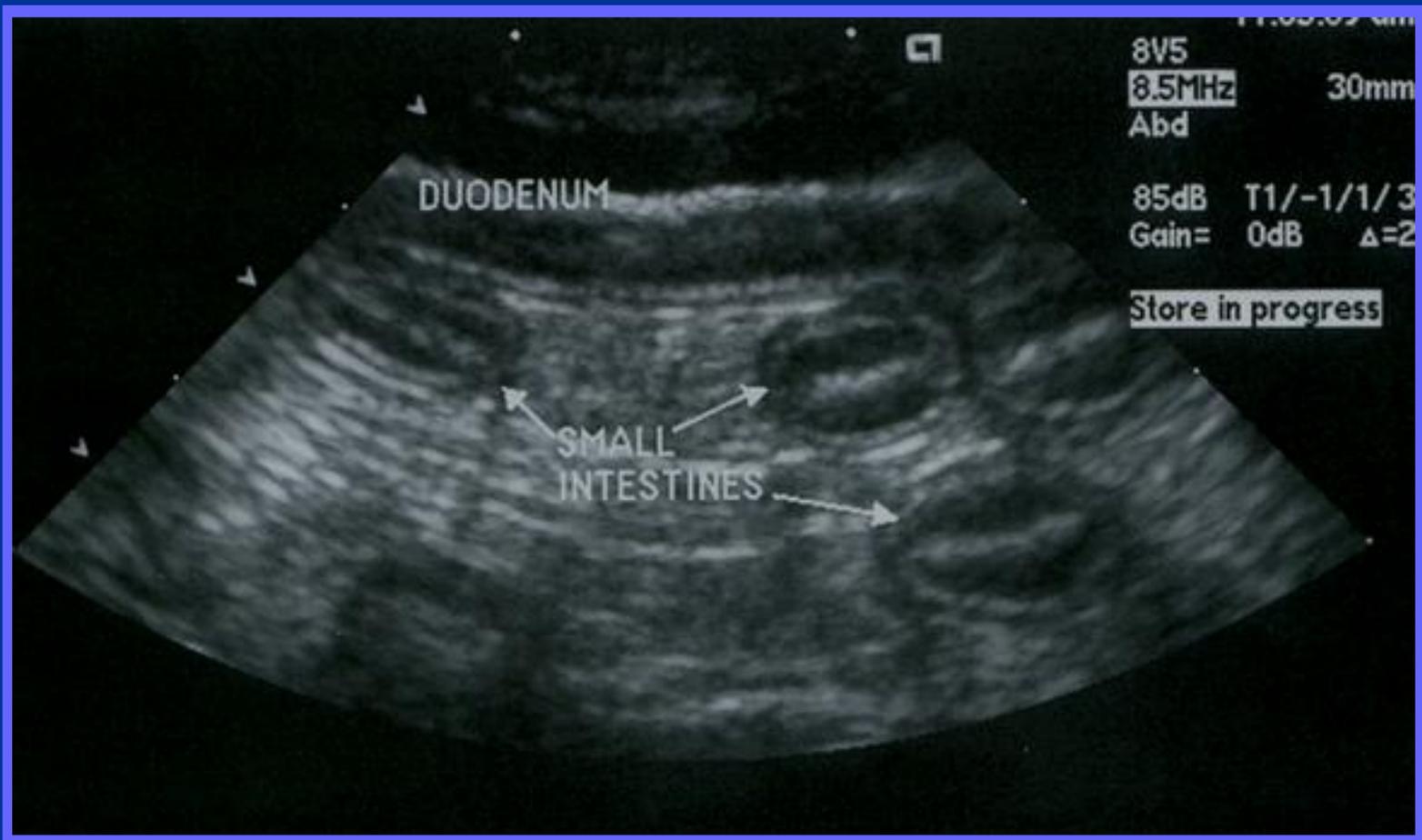
Paredes



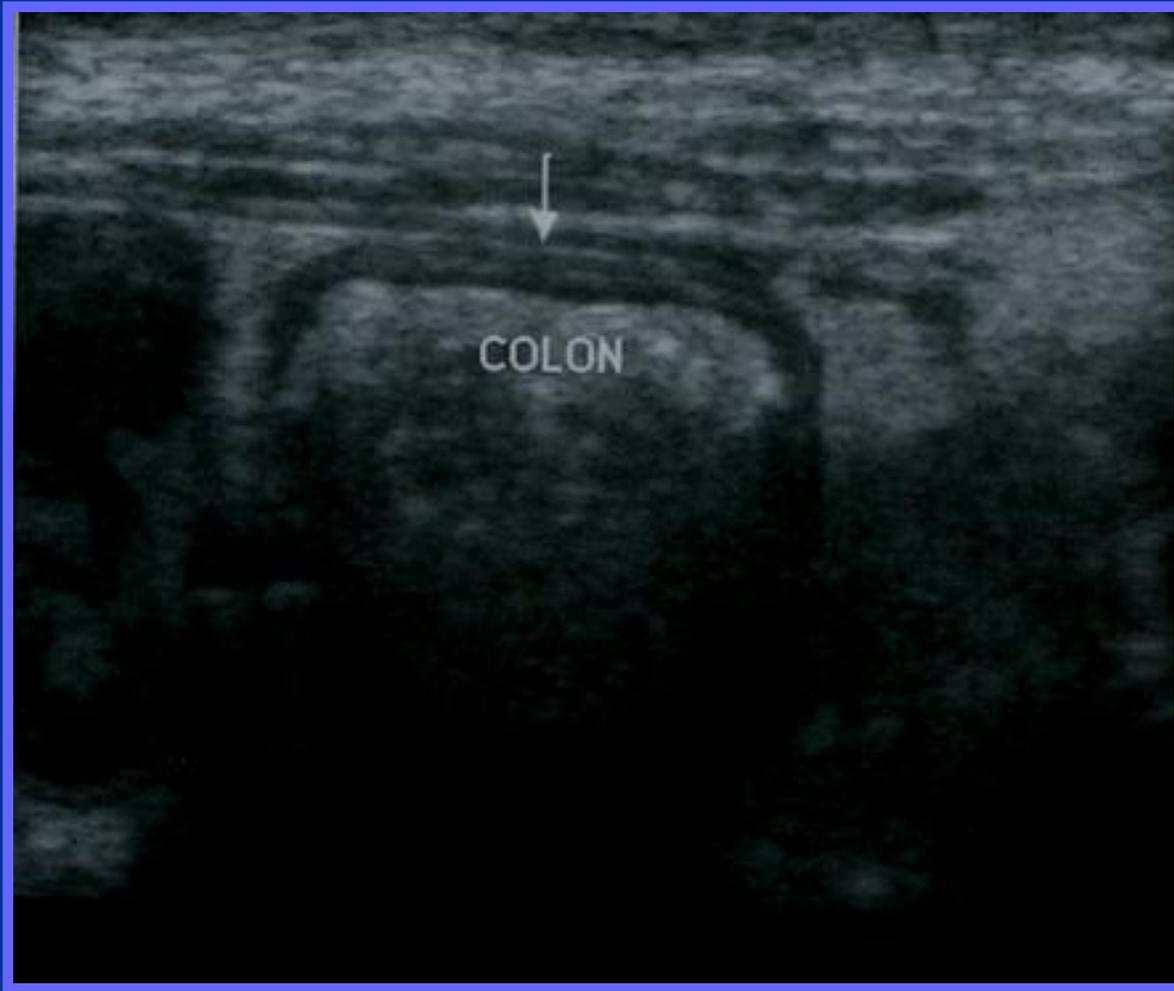
Ultrasonografía Intestinal



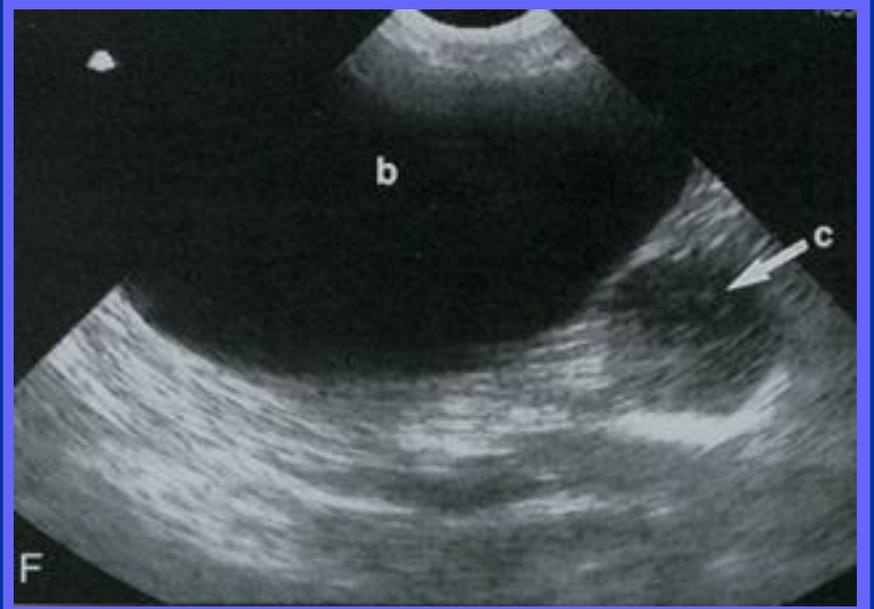
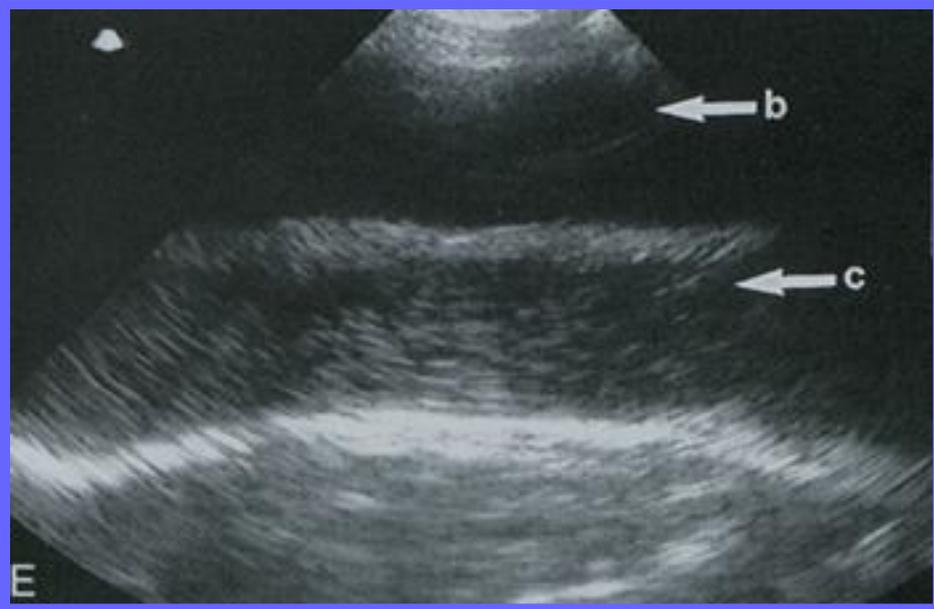
Hurd & Han, 2000



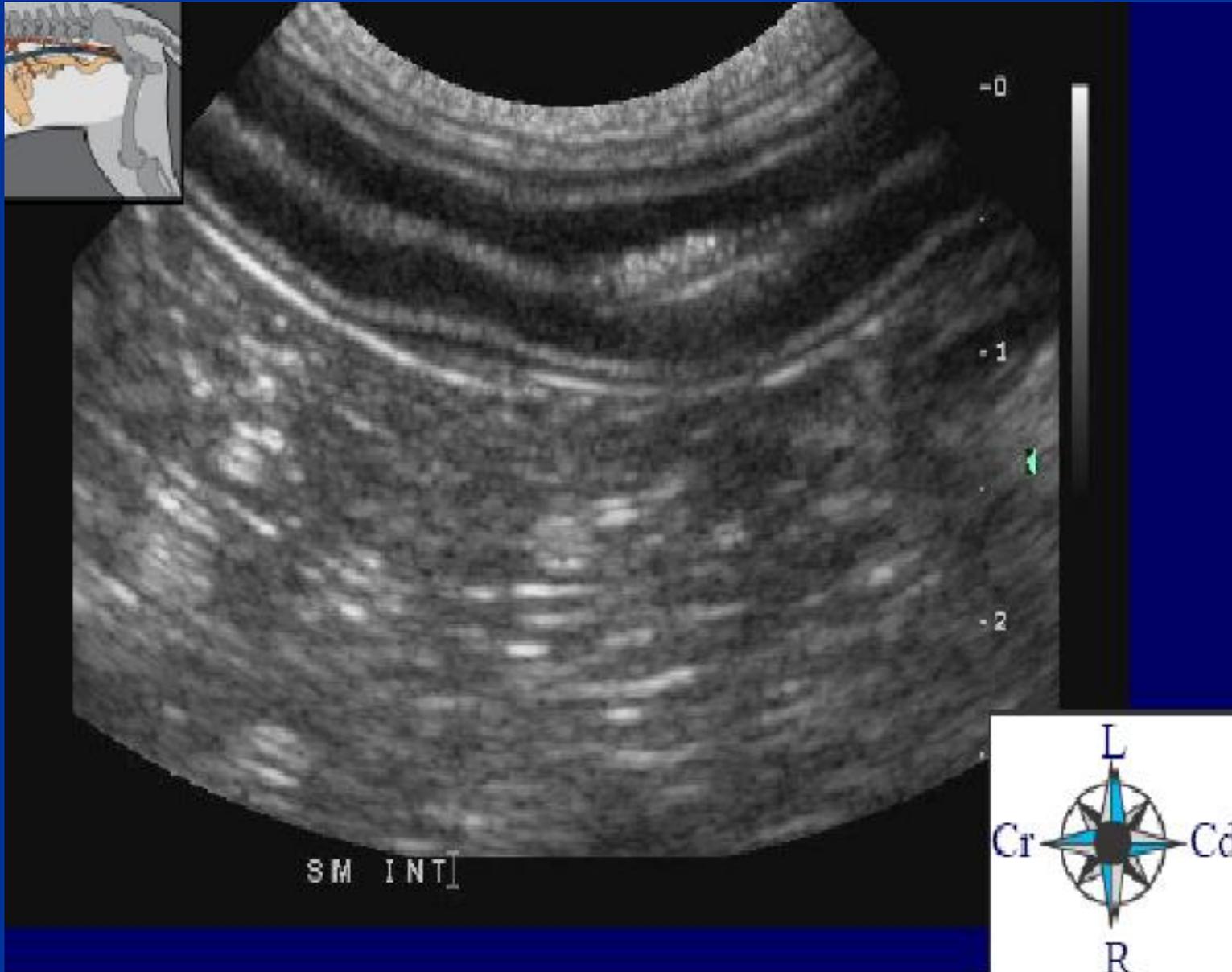




Hurd & Han, 2000



Duodeno



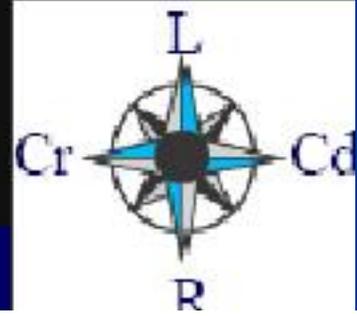
Ileum de gato

Map 3
150dB/C 3
Persist Low
2D Opt:Res
Fr Rate:Max

ATL

-0
-1
-2

ILEUM]



Unión íleo – cólica (gato)



Unión íleo – cólica (gato)



Patrones luminales – intestino delgado

- Patrón de la mucosa – estado colapsada.
 - Hallazgo normal más común.
- Patrón del fluido – contenidos luminales anecoicos.
 - Distensión de fluidos
- Patrón de gas – interfase reflectiva.
- Patrón alimentario – tipo de comida ingerida y el grado de atenuación del ultrasonido.

Descriptores de ultrasonido para enfermedad

■ Normal:

- Habilidad para determinar el grosor normal de la pared, identificación de las capas normales que componen la pared, simetría de la pared, contenido, motilidad y posición.

■ Anormal:

- Engrosamiento de la pared, pérdida de la definición de las capas de la pared, engrosamiento excéntrico, contenido dentro del intestino anormalmente distendido, pérdida de la motilidad o hipermotilidad, posición anormal.

Patrones normales

VET SPECIALISTS CENTER CB-5 Ped/NeoAb 9:14:02 am Fr #210 4.0 cm

Map 3
150dB/C 3
Persist Low
2D Opt:Res
Fr Rate:Max



VET SPECIALISTS CENTER CB-5 Ped/NeoAb 10:10:28 am Fr #221 4.0 cm

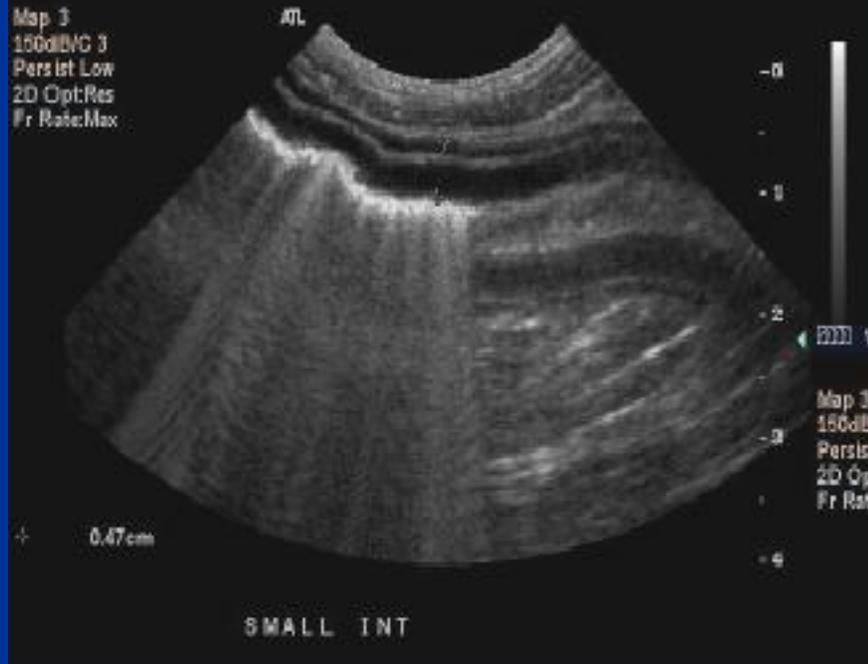
Map 3
150dB/C 3
Persist Low
2D Opt:Res
Fr Rate:Max



Patrones normales

VET SPECIALISTS CENTER C8-5 Ped/NeoAb 10:09:44 am Fr #81 4.0 cm

Map 3
150dBVC 3
Persist Low
2D Opt:Res
Fr Rate:Max



VET SPECIALISTS CENTER C8-5 Ped/NeoAb 10:21:01 am Fr #235 4.0 cm

Map 3
150dBVC 3
Persist Low
2D Opt:Res
Fr Rate:Max

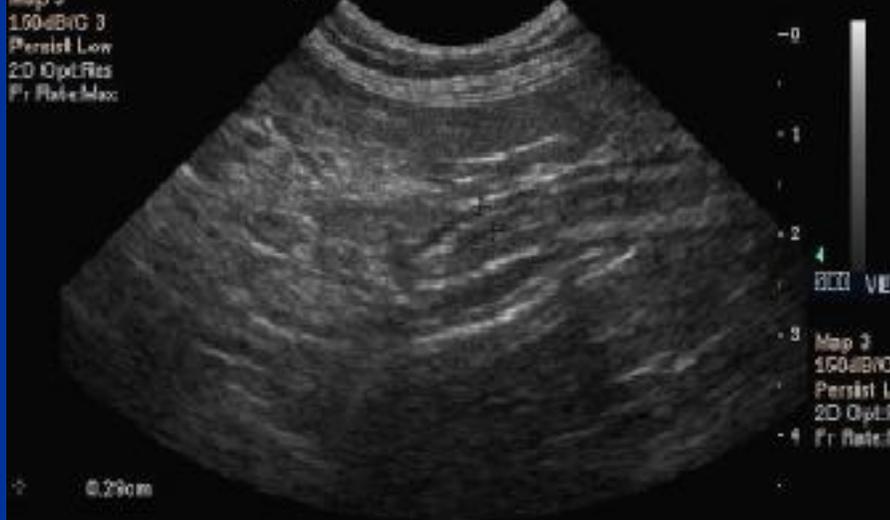


Unión íleo - cólica

VET SPECIALISTS CENTER CS-5 Ped/NeoAb 11:50:57 am Fr #234 4.8 cm

Map 3
150dB@3
Persist Low
2D Opt:Res
Fr Rate:Max

AL



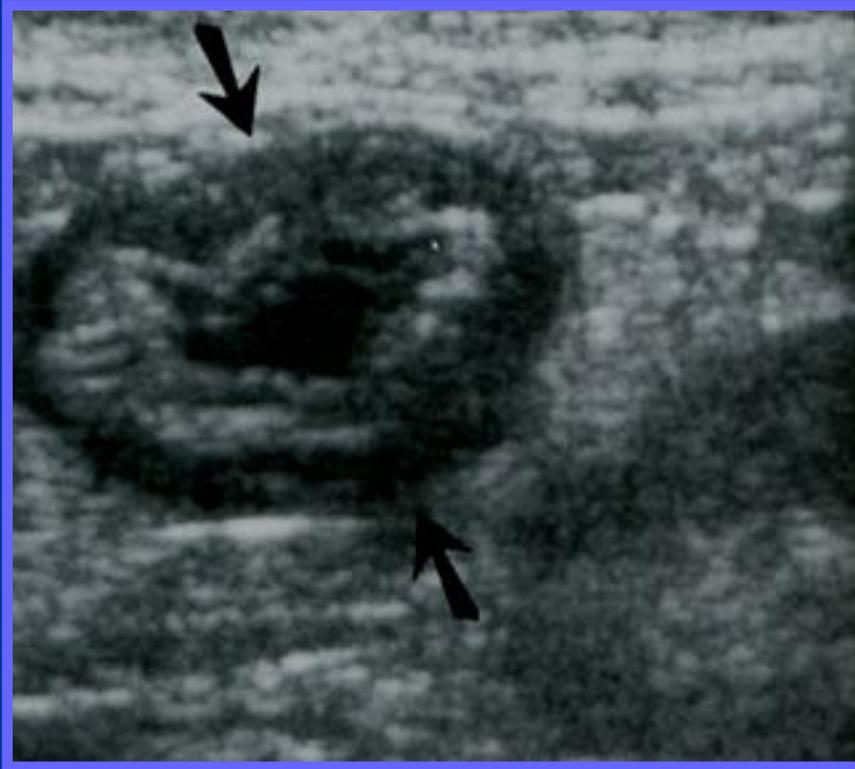
VET SPECIALISTS CENTER CS-5 Ped/NeoAb 11:56:09 am Fr #39 4.0 cm

Map 3
150dB@3
Persist Low
2D Opt:Res
Fr Rate:Max

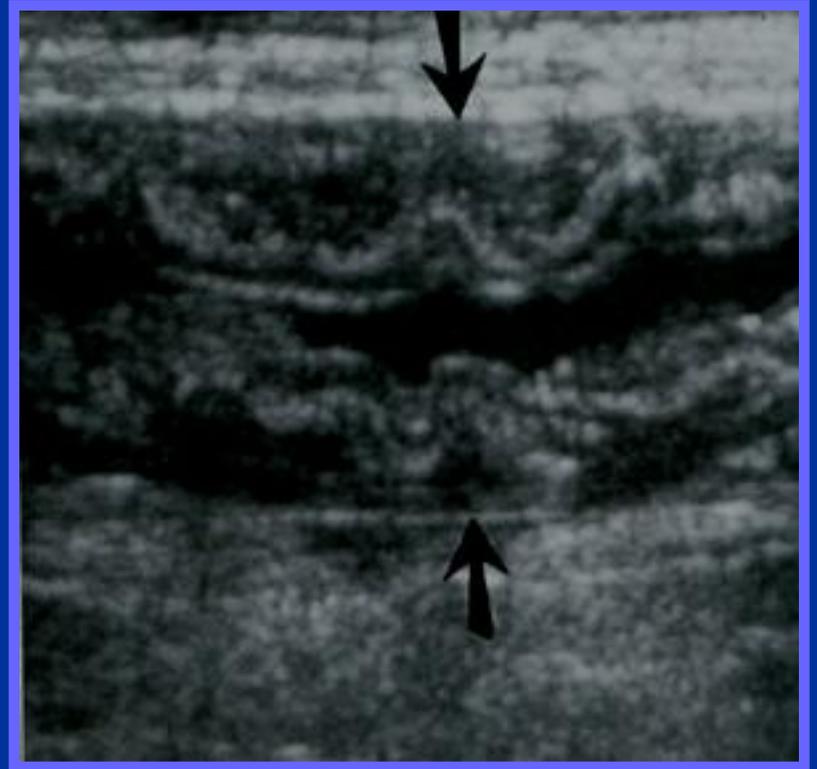
AL



Plano transversal



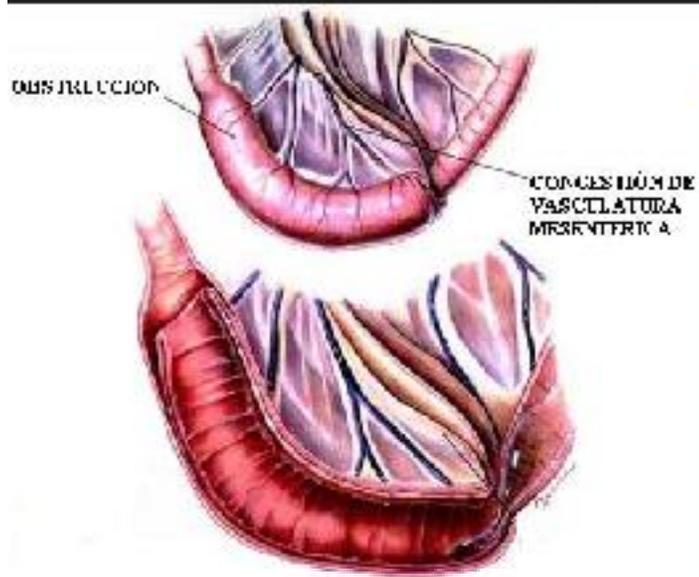
Plano longitudinal

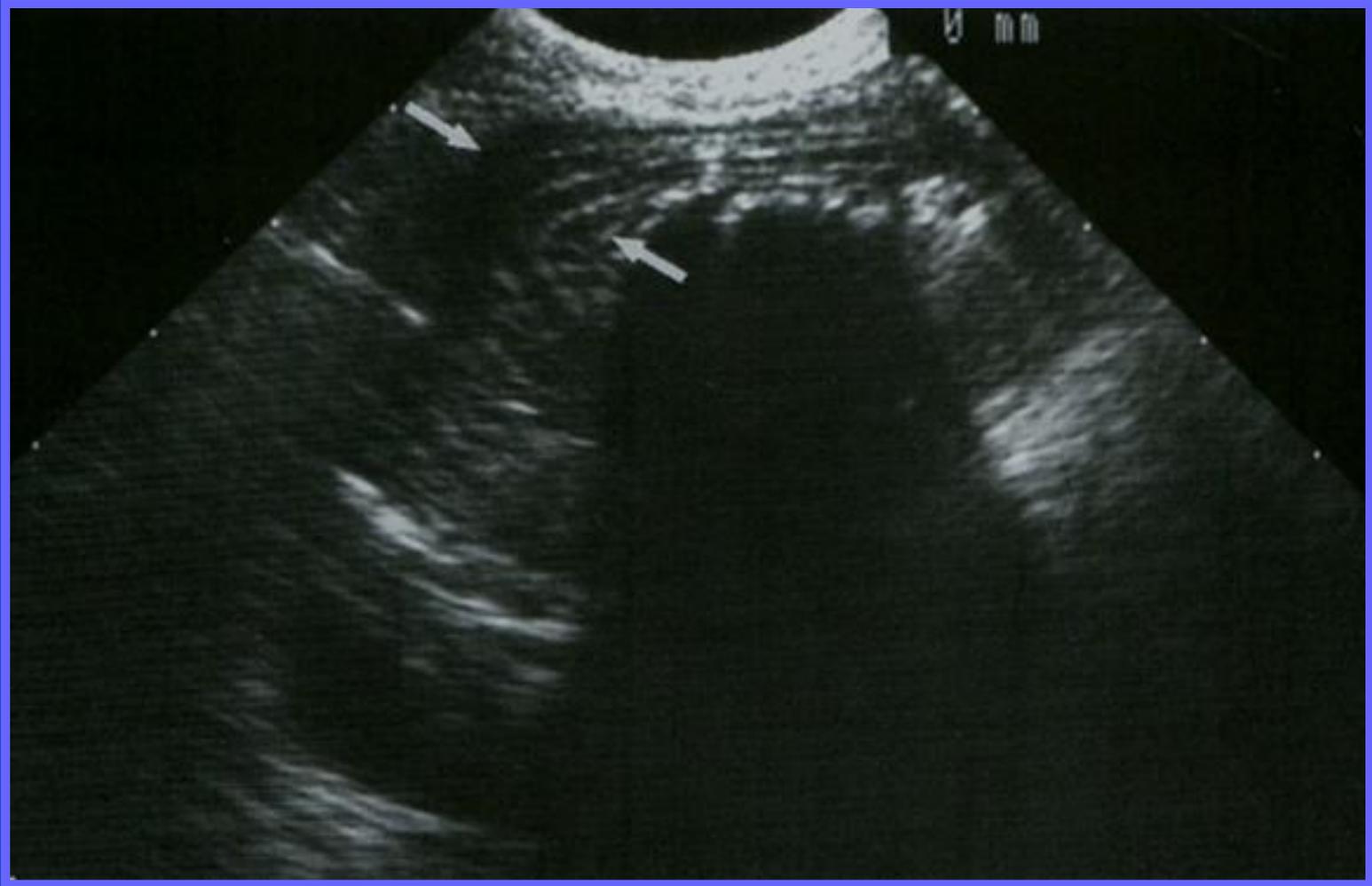


Burk & Ackerman, 1996

Colitis

Intususcepción

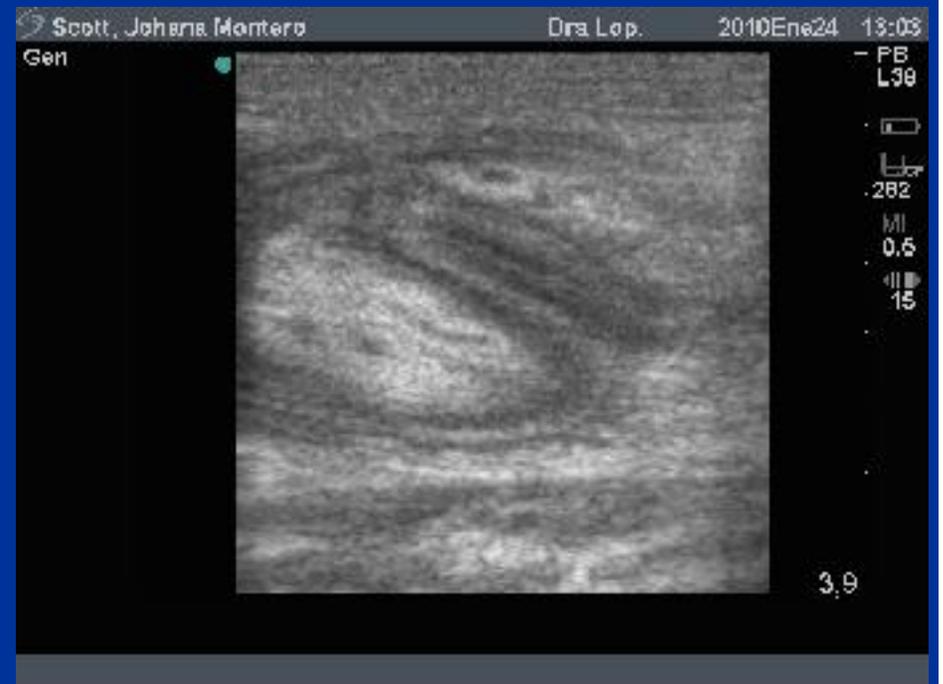
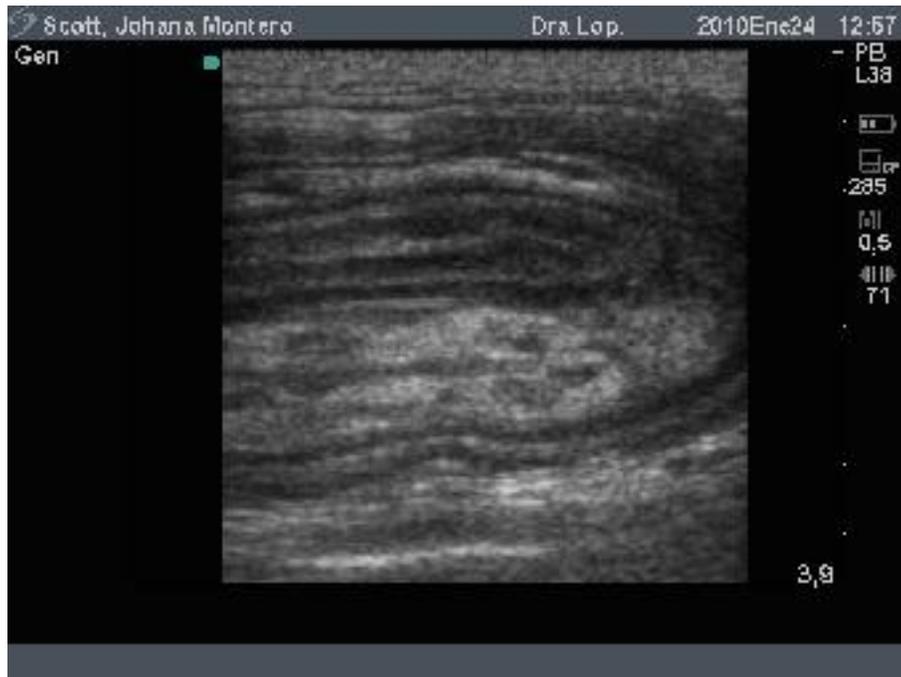




Intususcepción

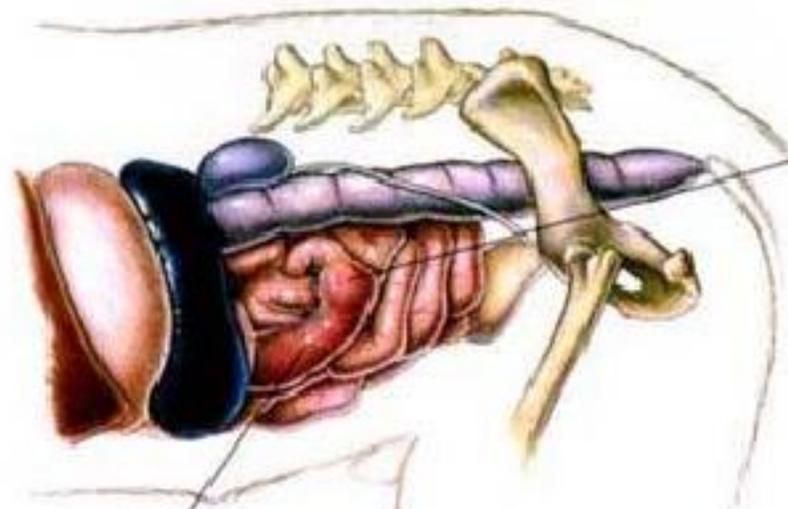
Green 1996





Cuerpo extraño

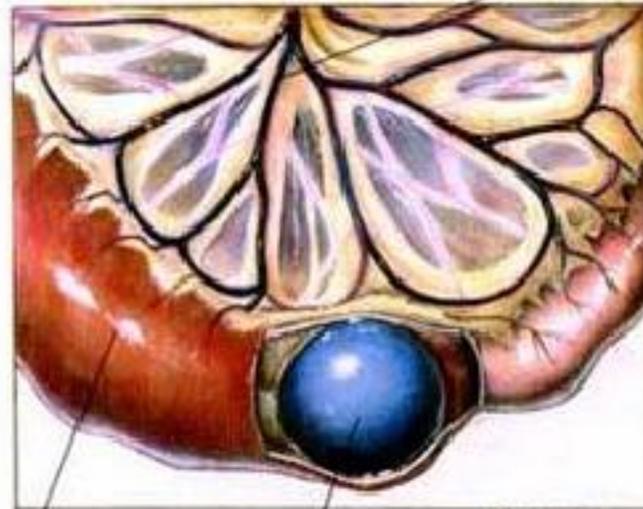
- Intestino delgado plegado – cuerpo extraño linear.
- Margen hiperecoico linear a lo largo del borde mesentérico.
- Linfadenopatía reactiva.
- Efusión focal
 - ± perforación de intestino
 - Ecogénico – bacterias intracelulares en el aspirado



**CUERPO
EXTRAÑO**

**DILATACIÓN
CRANEAL A LA
OBSTRUCCIÓN**

**CONGESTIÓN DE
VASOS
MESENTÉRICOS**



DILATACIÓN

CUERPO EXTRAÑO



cuerpo extraño

Green 1996



cuerpo extraño linear

Green 1996

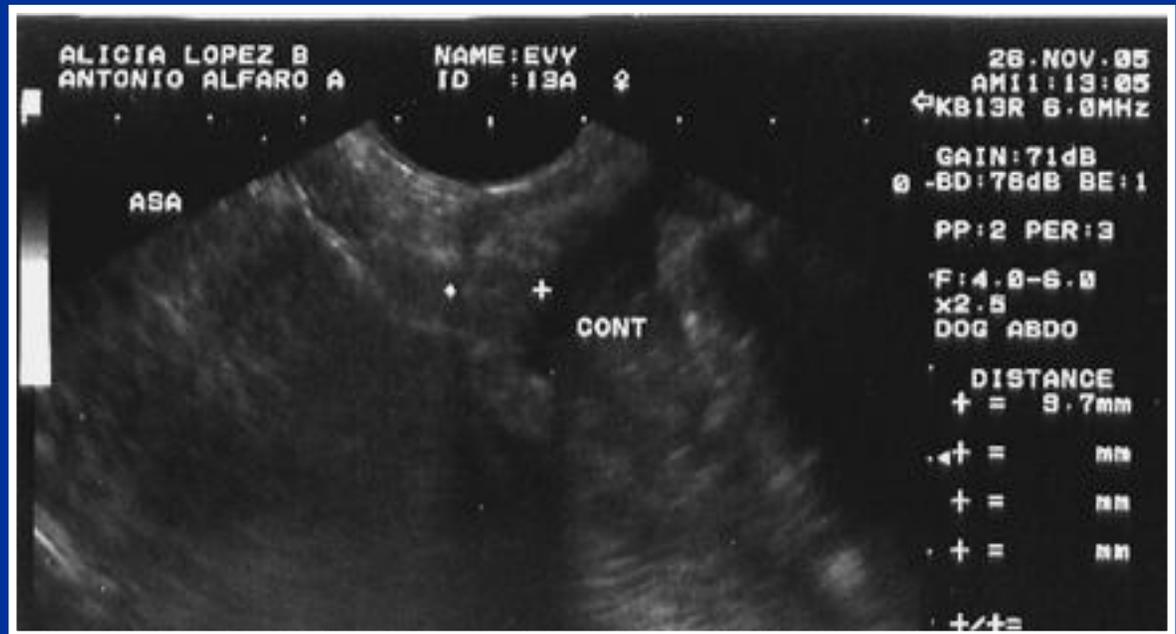
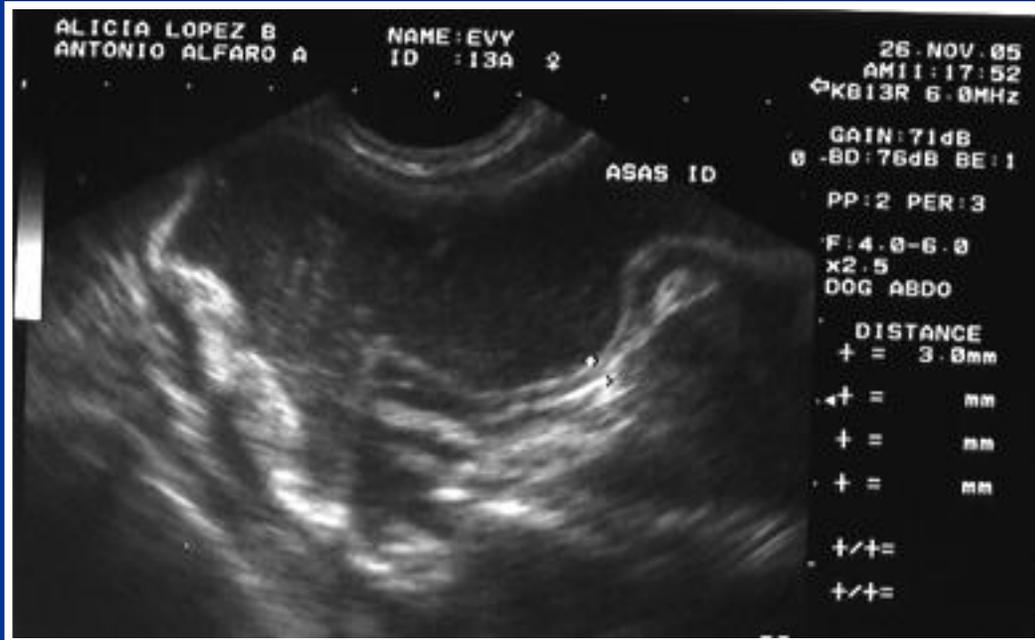
Cuerpo extraño





Distensión de intestino delgado





Gata

Dra Lop.

2009Feb02 15:10

Gen

intestind



- PB
L38



.492

M
0,5



229

3,9

Txt

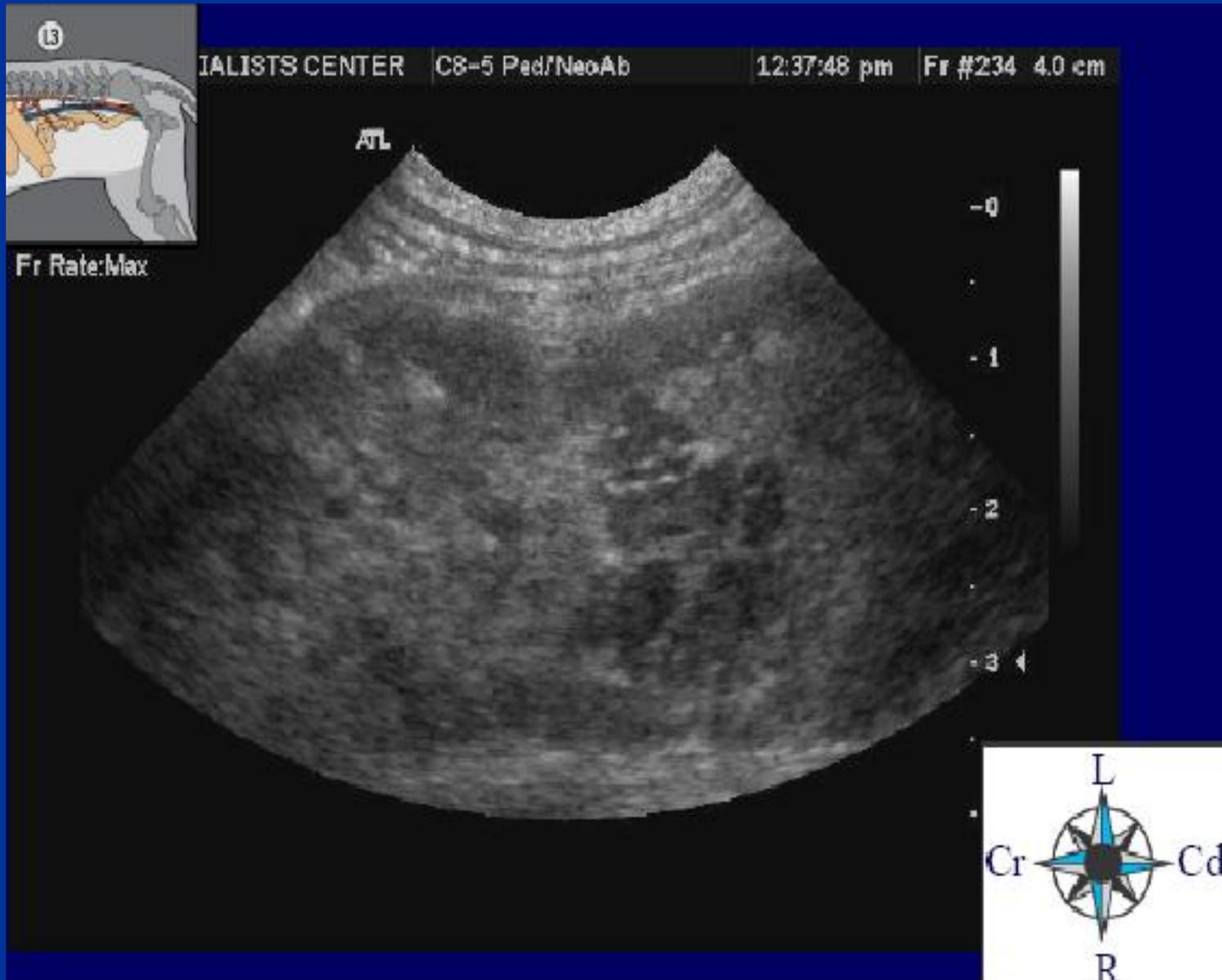
Simbolos...



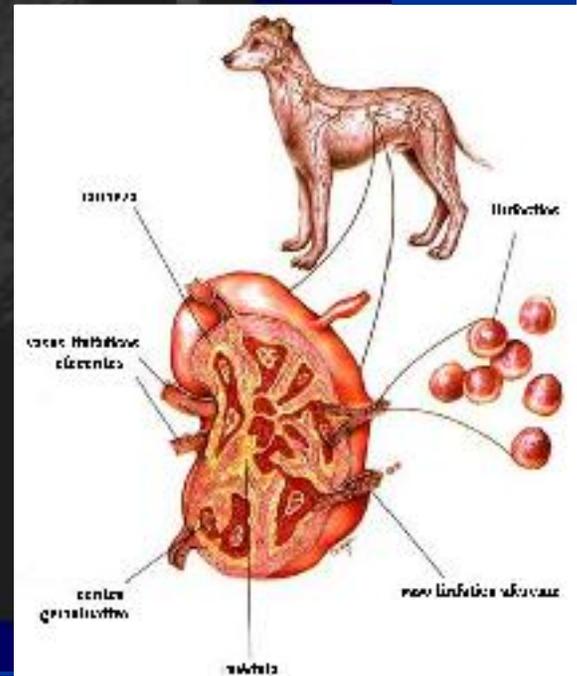
Linea

Salir

Pythium intestinal



Linfonodo mesentérico



Neoplasia

- Focal, engrosamiento excéntrico con pérdida de la visualización normal de las capas.
- Masas asociadas con gases luminales.
- Puede estar en el centro o ser intususcepción en pacientes viejos.
 - Blanco dentro de un blanco

Linfosarcoma de intestino delgado



Linfosarcoma de intestino delgado





Linfosarcoma

Green 1996

Linfosarcoma de intestino delgado



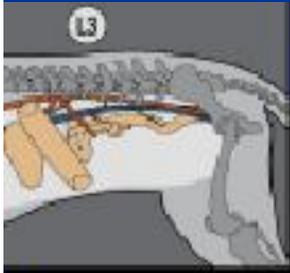
Linfosarcoma de intestino delgado



Linfosarcoma de intestino delgado

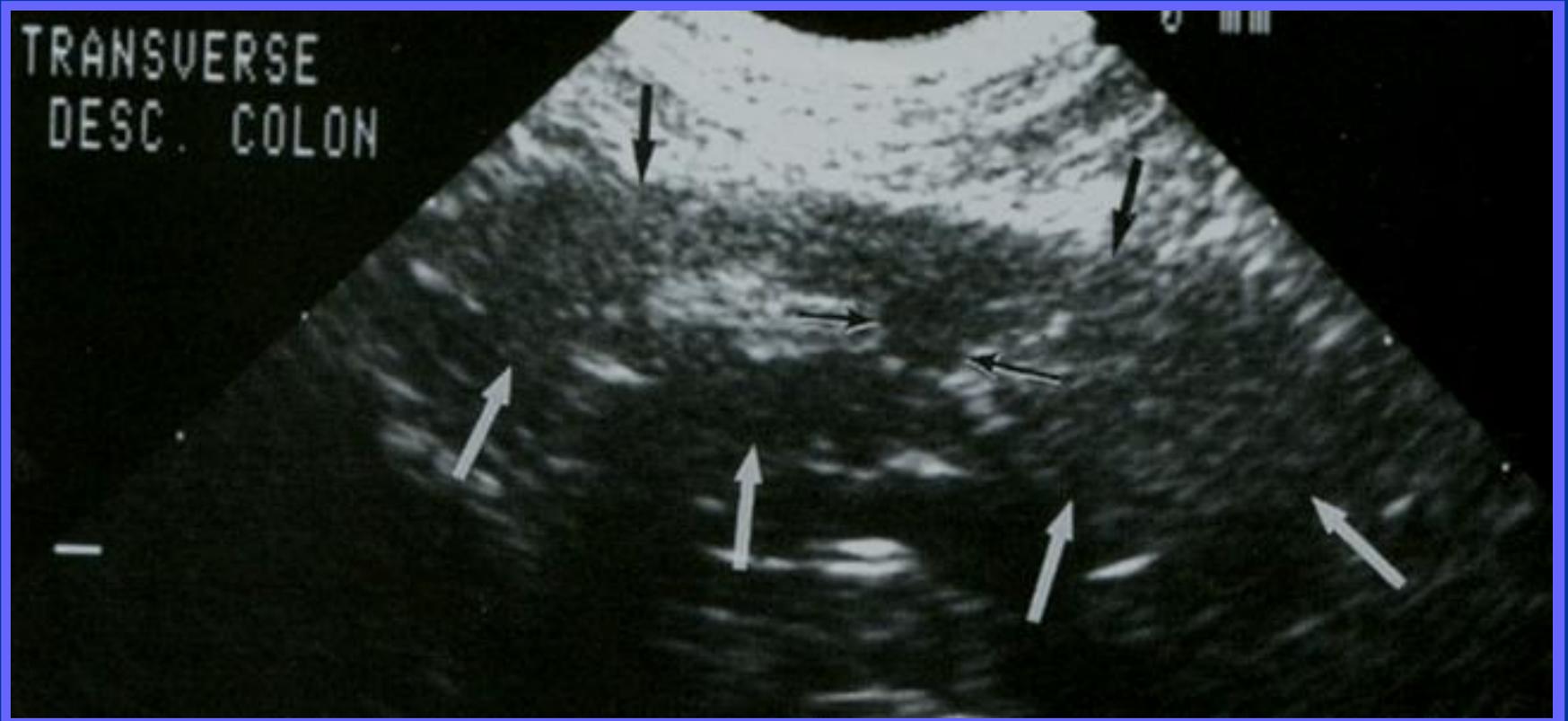


Adenocarcinoma en el intestino delgado



Adenocarcinoma en el intestino delgado



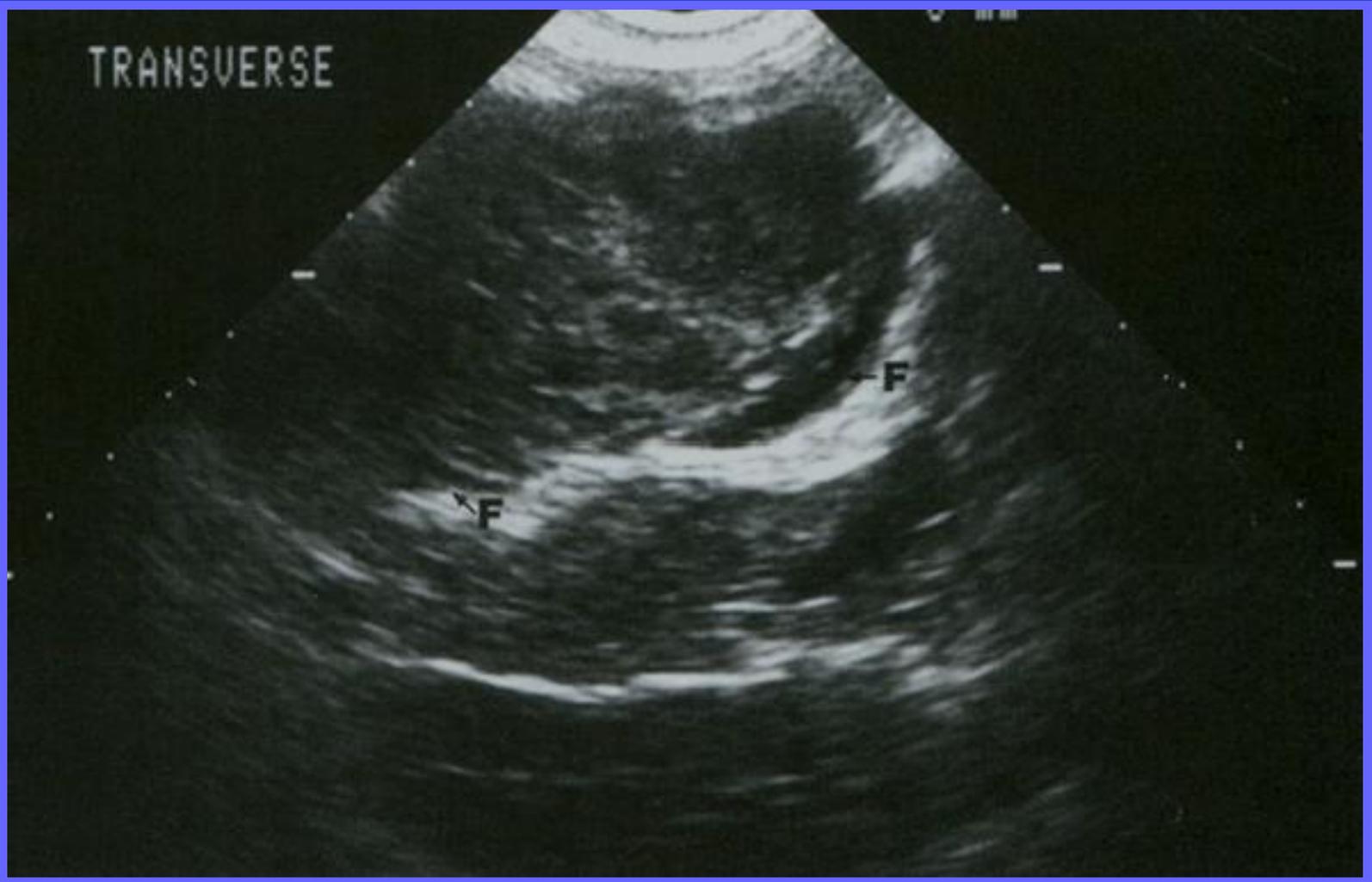


Green 1996

Adenocarcinoma

Adenocarcinoma en el intestino delgado





Green 1996

Leiomyosarcoma

Linfonodo abdominal - linfosarcoma



ALICIA LOPEZ B
ANTONIO ALFARO A

NAME: HARRY
ID : 15A

18 . MAY . 86
AM 10 : 22 : 51
KB13R 6 . 0MHz

GAIN : 72dB
BD : 76dB BE : 1

PP : 2 PER : 3

F : 6 . 0 - 8 . 0
x2 . 0
DOG ABDO

DISTANCE

+ = 5 . 1mm

+ = mm

+ = mm

+ = mm

+ / + =

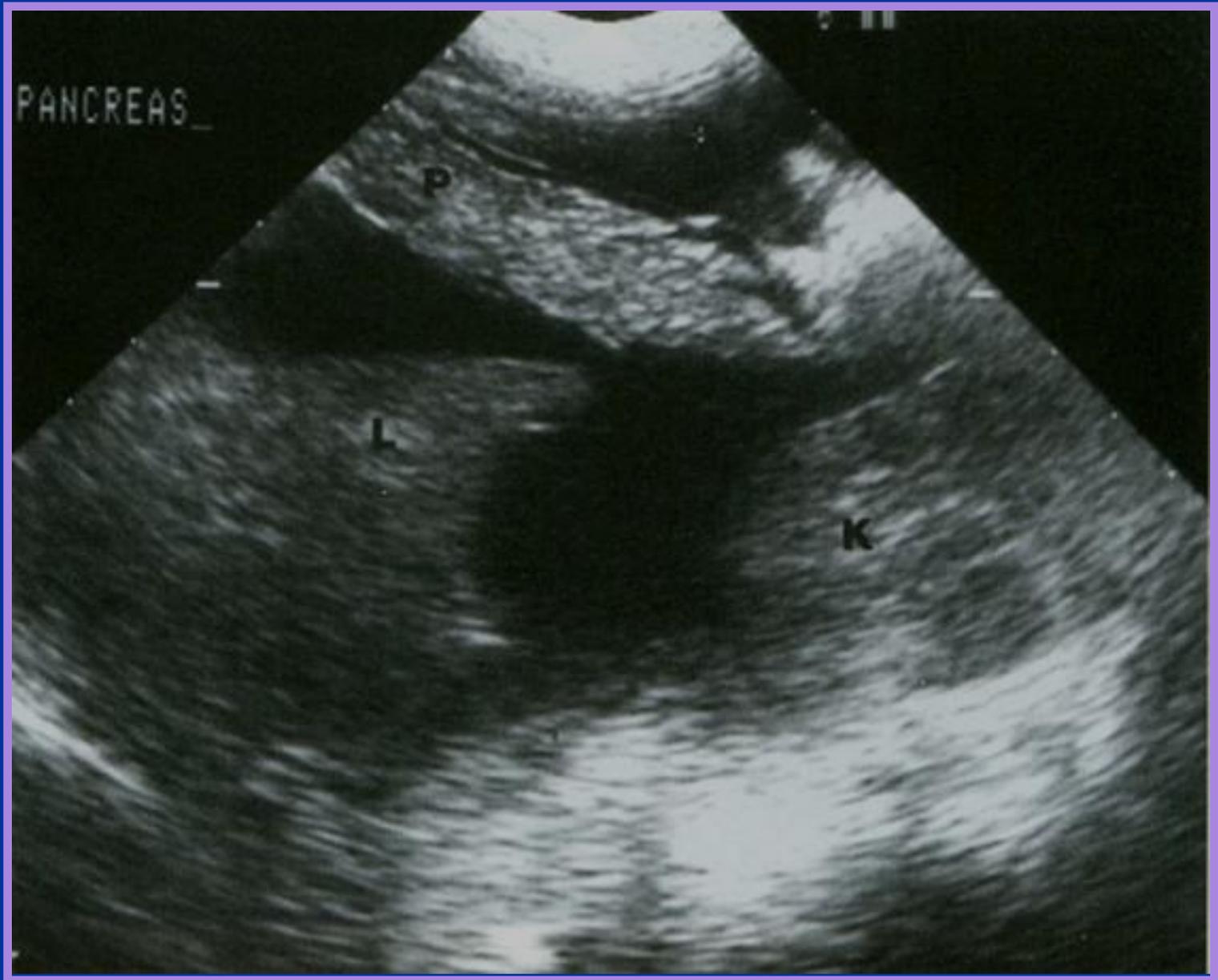
+ / + =

1
2
3
4

INTESTINO DELGADO



PERITONEO



Keally, 2000

■ Ascitis



Keally, 2000

■ Peritonitis

ALICIA LOPEZ B
ANTONIO ALFARO A

NAME: NELLA SA
ID : PASTOR ALEMAN ♀

24.OCT.05
PM 4:45:31
VA57R3.75MHZ

GAIN: 63dB
BD: 76dB BE: 1

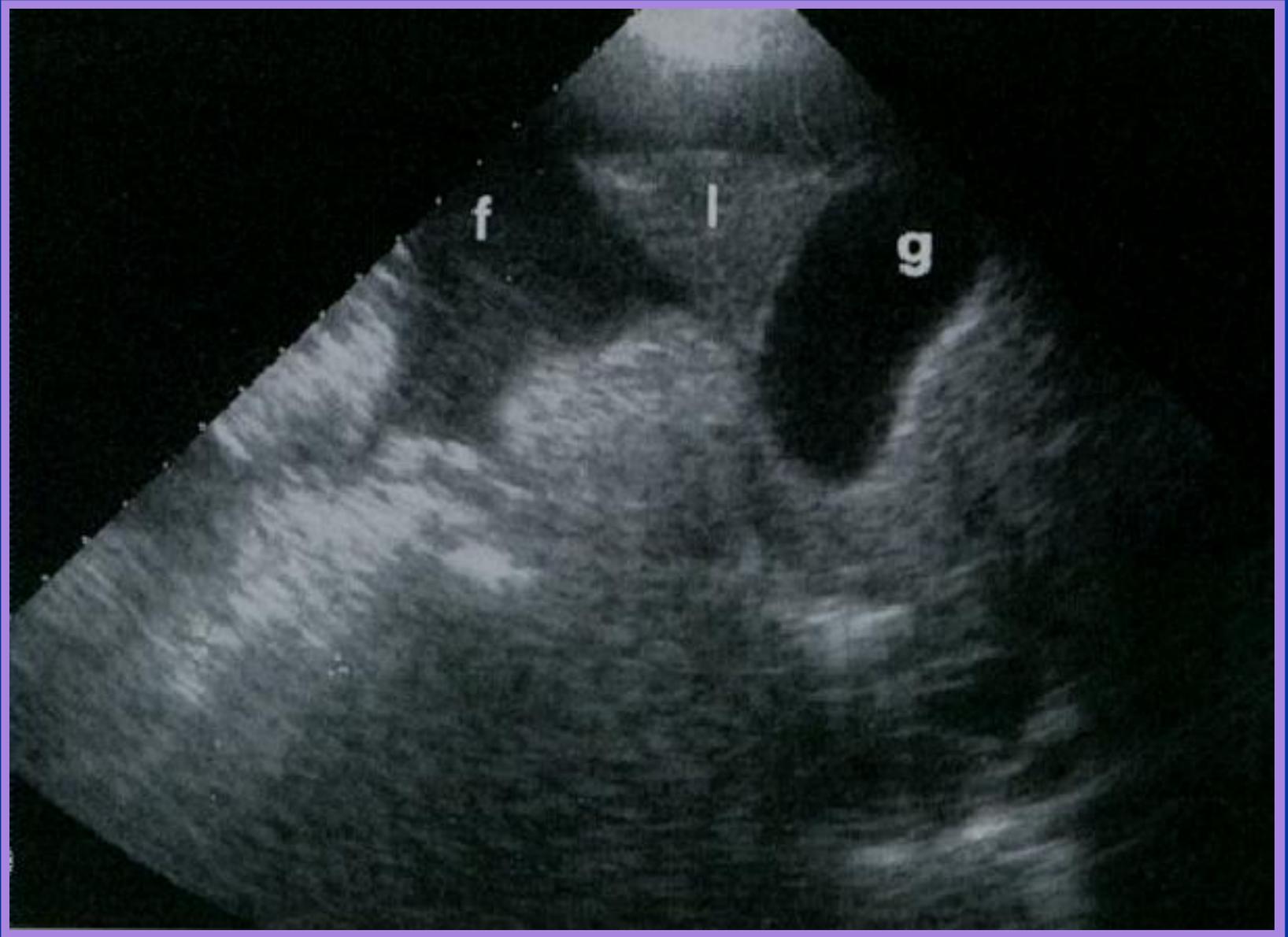
PP: 2 PER: 3

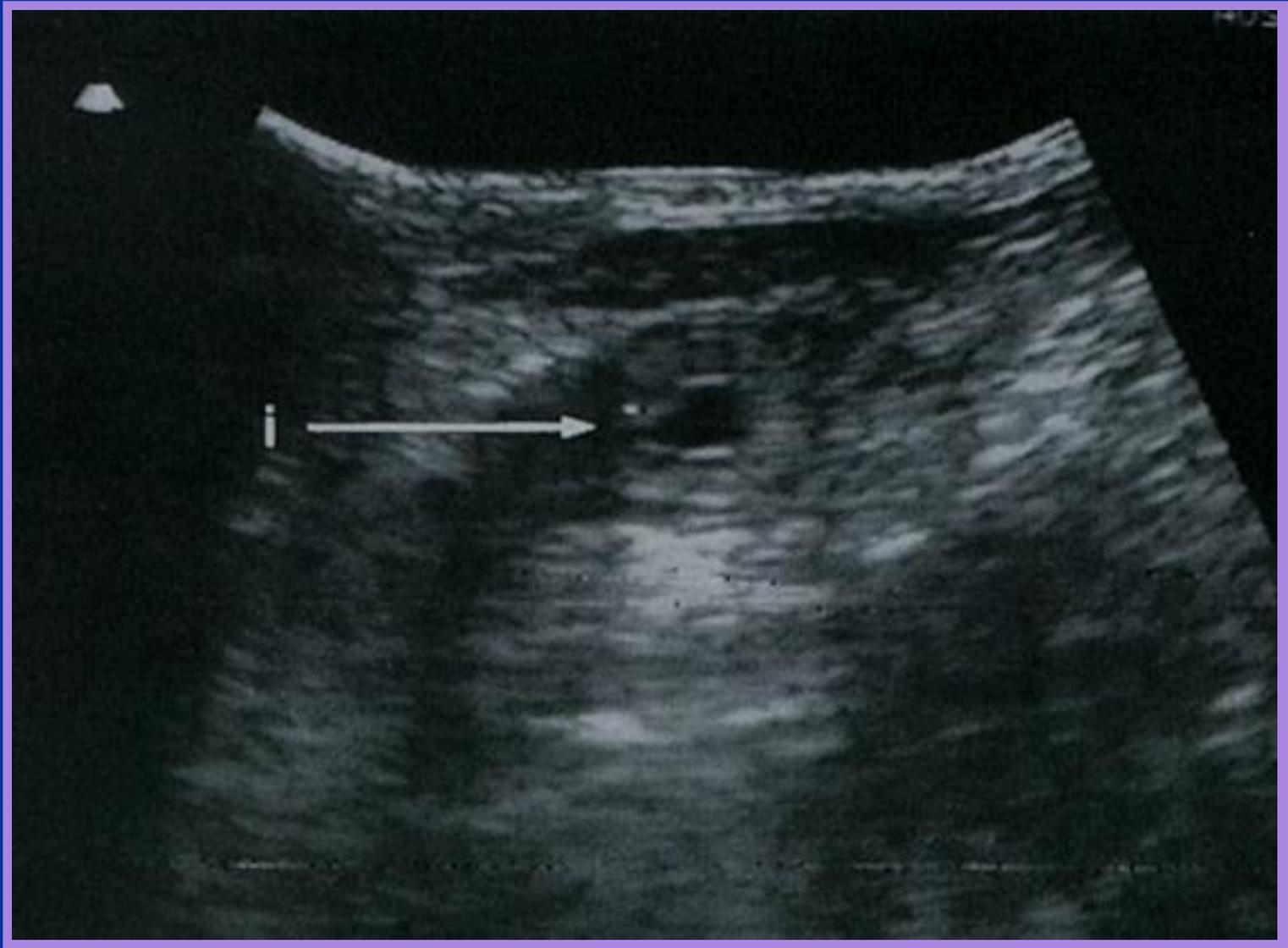
F: 4.0-6.0
x1.5
DOG ABDO

LIQUIDO CON PARTICULAS

110

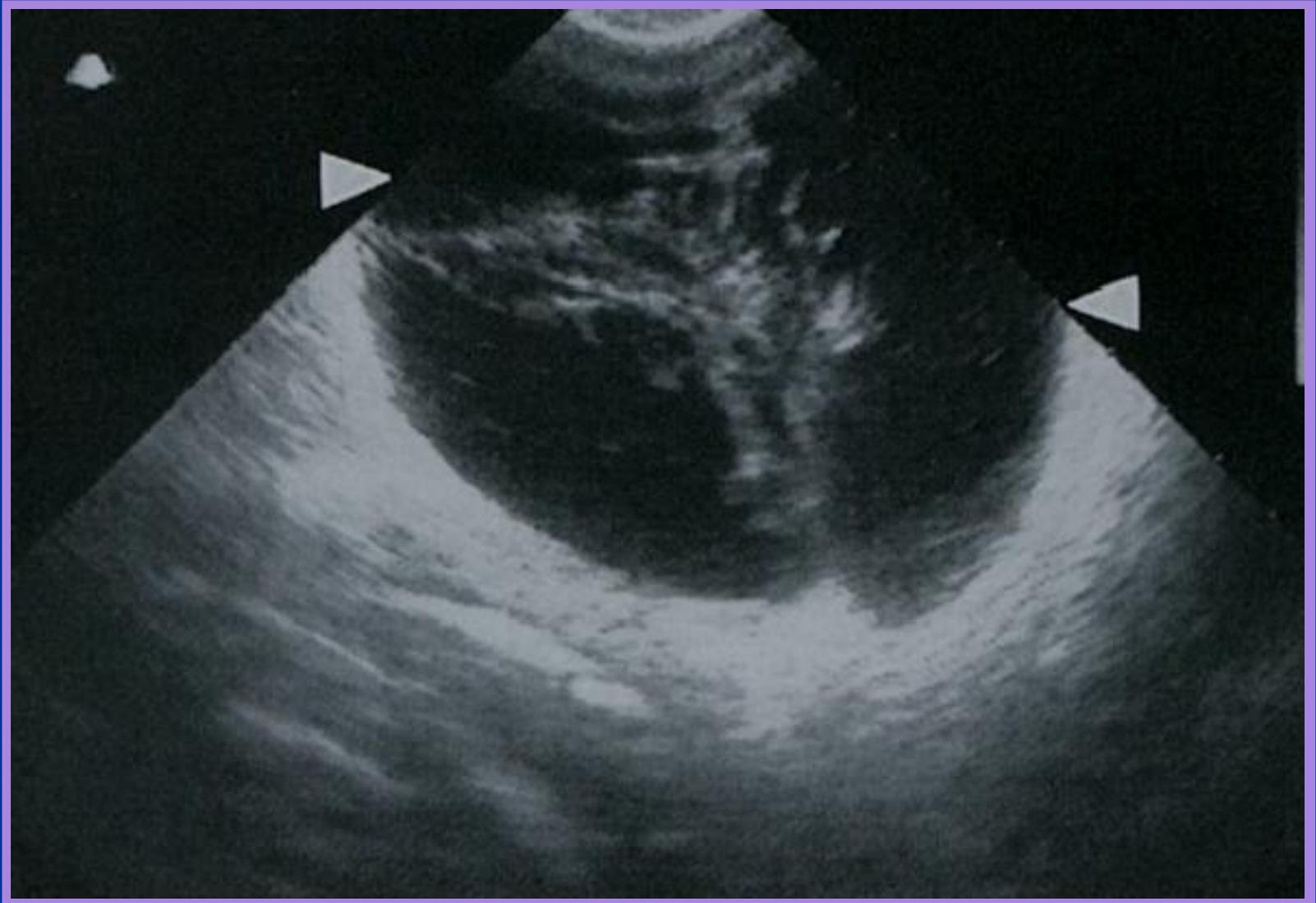






Keally, 2000

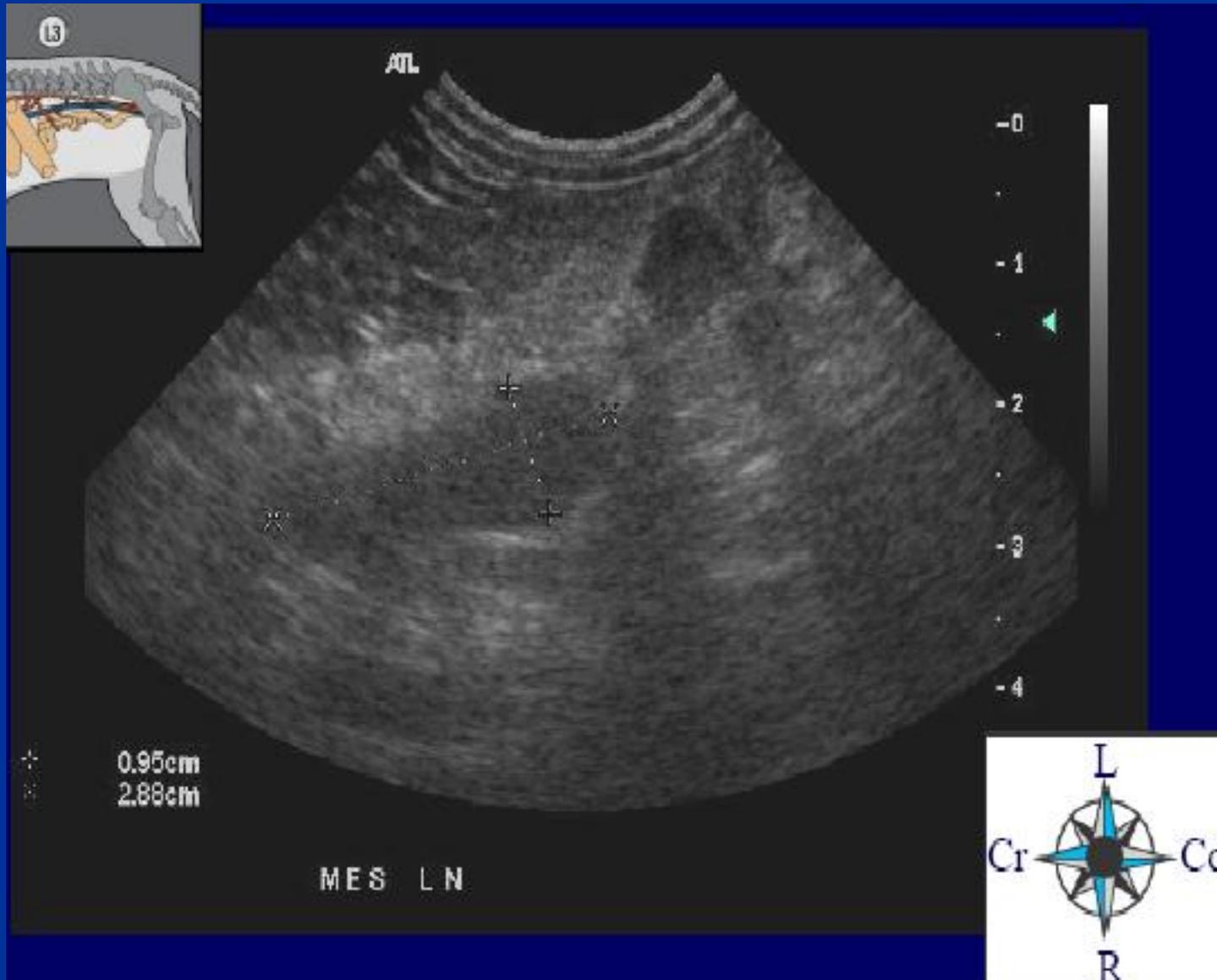
■ Hernia Inguinal



Keally, 2000

■ Hernia Inguinal

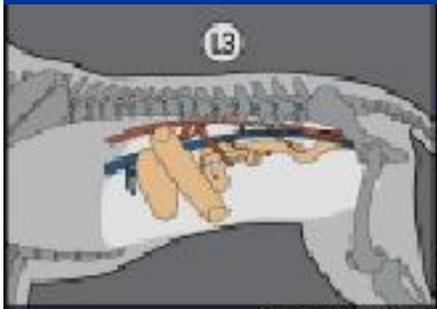
Linfonodo mesentérico agrandado



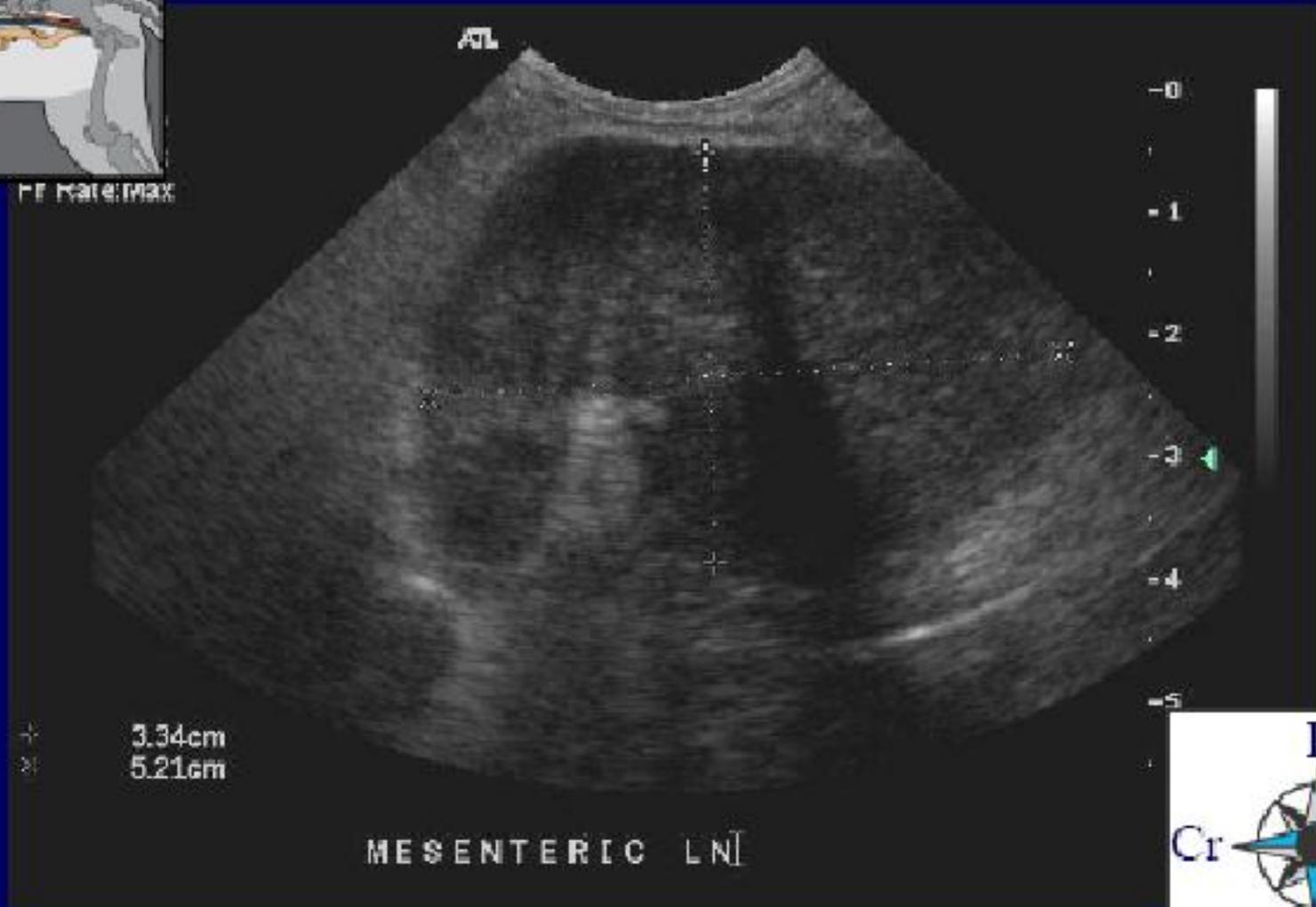
Linfonodo mesentérico- linfoSarcoma



Linfoma – linfonodo mesentérico



RF Gate:Max



3.34cm
5.21cm

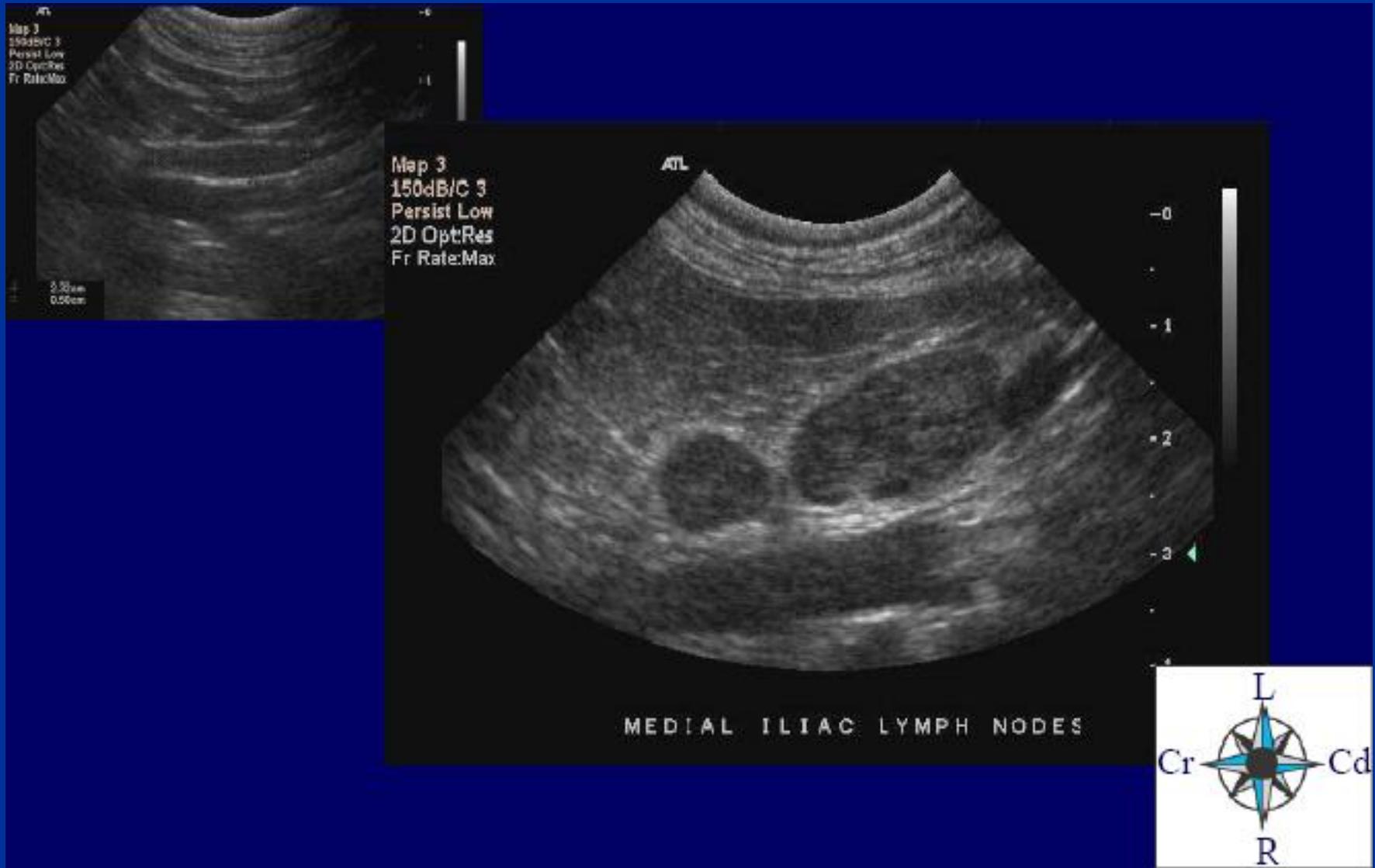
MESENTERIC LN



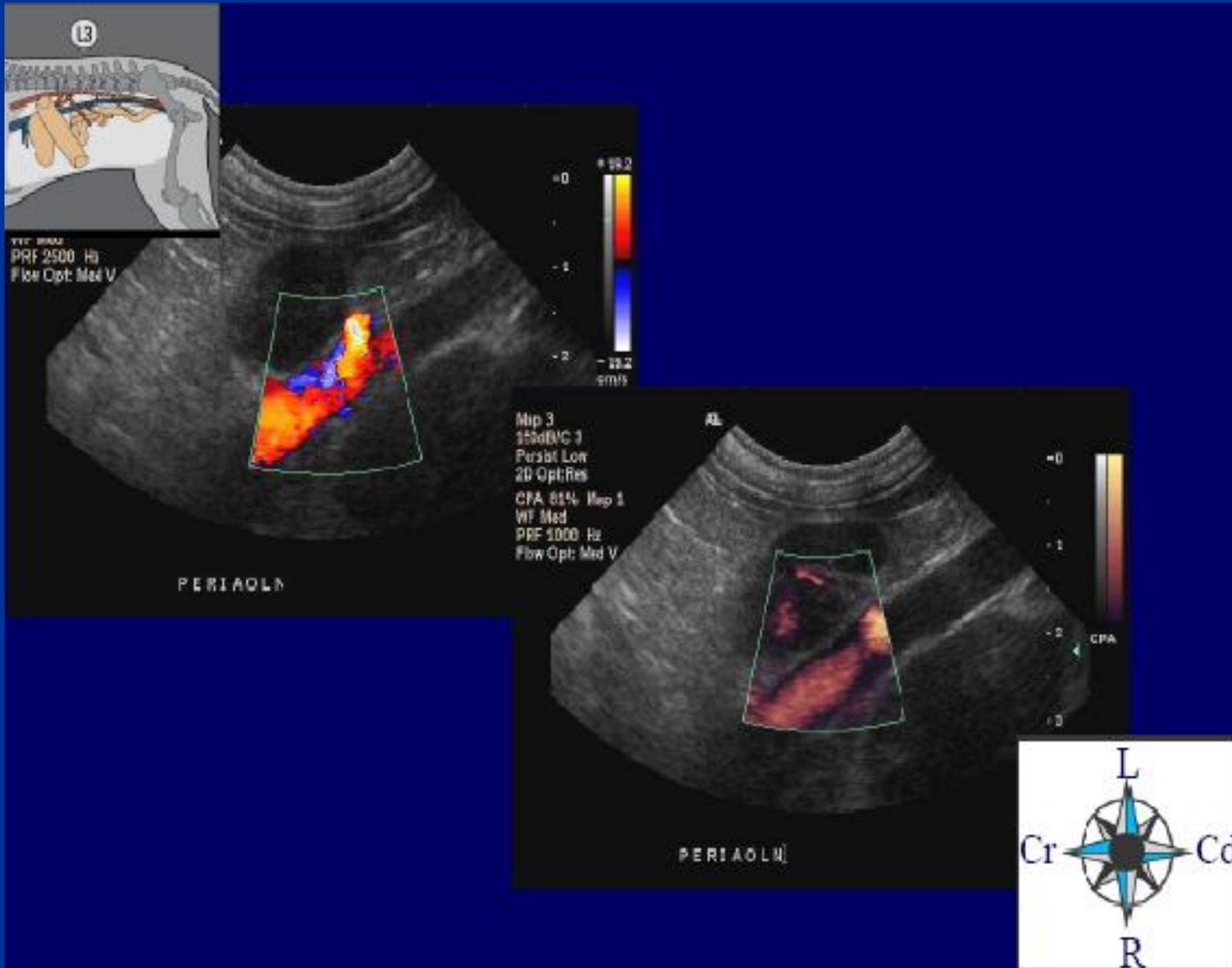
Linfonodo mesentérico - anecoico



Linfonodo iliaco medial: normal/ linfo sarcoma



Linfonodo periaórtico



Feocromocitoma periaórtico



Gran sarcoma - linfonodo

