

# IMPORTANCIA CLÍNICA DE LA REVISIÓN ULTRASONOGRÁFICA DE LA VESÍCULA BILIAR

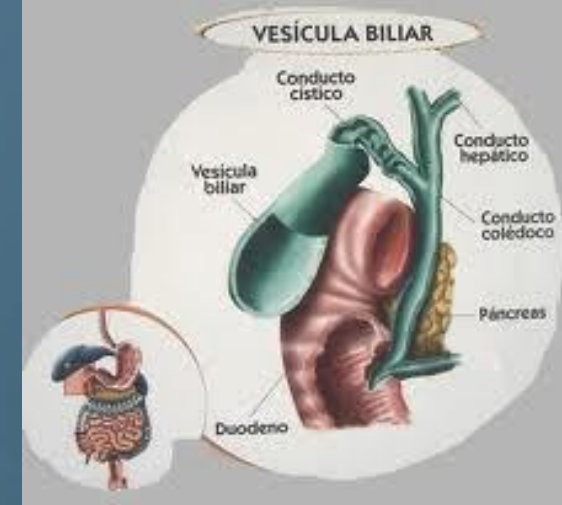
Análisis de casos

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## ▣ Vesícula biliar:



- Anecoica, estructura redonda u oval a la derecha de la línea media.
- Localizada entre los lóbulos hepáticos medial derecho y medial lateral en el perro y entre el lóbulo medial derecho en el gato.
- Sedimento ecogénico (cantidades pequeñas) es normal.
- En el gato se puede identificar el ducto quístico (< de 3mm de diámetro).
- La pared ecogénica es bien delgada y no debería identificarse en el examen de US del perro y el gato normales.

# Vesícula biliar

- ▣ Colecistitis
- ▣ Cálculos
- ▣ Cambios perihepáticos ecogénicos
- ▣ Efusión focal
- ▣ Engrosamiento de la pared o edema
- ▣ Neoplasia
- ▣ Obstrucción

# Vesícula biliar - gato



# Barro biliar

- ▣ El barro biliar es un material ecogénico dentro de la vesícula biliar que no presenta sombra acústica.
- ▣ También llamado microlitiasis, es una acumulación de cristales de monohidrato de colesterol o sales de calcio (ej.: bilirubinato de calcio), embebidas en un muco.
- ▣ Es considerado precursor de la colelitiasis y está asociado con estasis biliar.

- ▣ La colestasis biliar seguida de la imposibilidad del vaciamiento vesicular juega un rol en la patofisiología de la colecistitis y la colelitiasis debido a la exposición prolongada del epitelio biliar a los ácidos biliares concentrados, los cuales poseen efectos hidrofóbicos e citotóxicos.

# Debris



# Colestasis





# Colestasis



# Colestasis

Carmelita, sch, DraAle. 2012Abr12 14:54

Gen vesicula biliar



5,5

- PB  
L38  
CF  
396  
MI  
0,4  
162

Txt Símbolos... X Linea Salir

Detailed description: This is a screenshot of a medical ultrasound software interface. The main window displays a grayscale B-mode image of a gallbladder. The gallbladder lumen is filled with echogenic (bright) material, and the wall appears thickened. A green dot is placed on the upper left edge of the gallbladder, with the text 'vesicula biliar' next to it. In the bottom right corner of the image area, the number '5,5' is displayed. To the right of the image is a vertical toolbar with several icons and numerical values: a minus sign, 'PB', 'L38', a cursor icon, a battery icon, a 'CF' icon, '396', 'MI', '0,4', '162', and a document icon. At the top of the interface, the patient name 'Carmelita, sch, DraAle.' and the date/time '2012Abr12 14:54' are visible. At the bottom, there is a control bar with buttons for 'Txt', 'Símbolos...', 'X Linea', and 'Salir'.

# Colestasis



# Colestasis



# Colestasis

Lulu, 13a, DrsHerreraVi. 2012May30 15:00

Gen

higado y vb



6,5

Mam L38

543

MI 0,4

11

Txt Símbolos... X Linea Salir

Detailed description: This is a screenshot of a medical ultrasound software interface. The main window displays a grayscale B-mode ultrasound image of the liver and gallbladder. The gallbladder is visible as a dark, anechoic structure. The text 'higado y vb' is overlaid on the image, with a white arrow pointing to the gallbladder. The number '6,5' is displayed in the bottom right corner of the image area. The top of the interface shows patient information: 'Lulu, 13a, DrsHerreraVi.' and the date/time '2012May30 15:00'. On the left, the text 'Gen' is visible. On the right, there is a vertical toolbar with icons for 'Mam L38', a battery level indicator, a 'CF' icon, and the number '543'. Below these are 'MI 0,4' and '11'. At the bottom, there is a navigation bar with buttons for 'Txt', 'Símbolos...', 'X Linea', and 'Salir'.

# Colestasis

nino Dra Lop. 2011Abr01 10:04

Gen vbl



5,5

- PB  
L38  
CF  
516  
MI  
0,4  
162

Txt Símbolos... X Linea Salir

Detailed description: This is a screenshot of a medical ultrasound interface. The main window displays a grayscale B-mode image of a gallbladder. The lumen is filled with echogenic material, likely sludge or small stones, which is a sign of cholestasis. The gallbladder wall appears slightly thickened. The interface includes a patient name 'nino', a doctor's name 'Dra Lop.', and a date/time stamp '2011Abr01 10:04'. On the left, 'Gen' and 'vbl' are visible. On the right, there is a vertical scale with markers at 516, MI 0,4, and 162. A depth marker '5,5' is shown at the bottom right of the image area. The bottom of the screen features a control bar with buttons for 'Txt', 'Símbolos...', 'Linea', and 'Salir'.

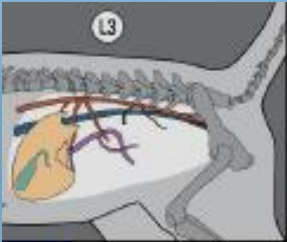
# Colestasis y pólipo



# Colecistitis

- ▣ Hallazgos ulx poco específicos.
- ▣ Asociada con diabetes mellitus, bacterias productoras de gas





ATL



LIVER/GB I



# Colecistitis



# Colecistitis

Bonita 4a, DrHerrera Dra Lop. 2011Dic27 09:56

Gen higadd



5,5

— PB  
L38  
CF  
540  
MI  
0,4  
117

Txt Símbolos... X Linea Salir

Detailed description: This is a screenshot of a medical ultrasound interface. The top status bar shows patient information: 'Bonita 4a, DrHerrera', operator 'Dra Lop.', date '2011Dic27', and time '09:56'. The main display area is split into three sections. On the left, the text 'Gen' and 'higadd' is visible. The center features a grayscale B-mode ultrasound image of a gallbladder, showing a thickened wall and echogenic debris inside. On the right, technical parameters are listed: '— PB', 'L38', 'CF', '540', 'MI', '0,4', and '117'. A depth scale on the right side shows a marker at '5,5'. At the bottom, there is a control bar with buttons for 'Txt', 'Símbolos...', 'X Linea', and 'Salir'.

# Colecistitis

Chicho mastin napo, Dr. Dra Lop. 2011Mar04 13:34

Gen colecistitis



- PB  
L38  
CF  
463  
MI  
0,4  
15

6,5

Txt Símbolos... X Linea Salir

Detailed description: This is a screenshot of a medical ultrasound interface. The top status bar shows the user 'Chicho mastin napo, Dr.', the operator 'Dra Lop.', and the date/time '2011Mar04 13:34'. The main display area is split into three sections. On the left, the text 'Gen' and 'colecistitis' is visible, with a small green dot next to 'colecistitis'. The center section contains a grayscale ultrasound image of a gallbladder, showing a thickened wall and echogenic debris. On the right, there is a vertical list of technical parameters: '- PB', 'L38', a battery icon, 'CF', '463', 'MI', '0,4', and '15'. At the bottom right of the image area, the number '6,5' is displayed. The bottom navigation bar includes buttons for 'Txt', 'Símbolos...', 'X Linea', and 'Salir'.

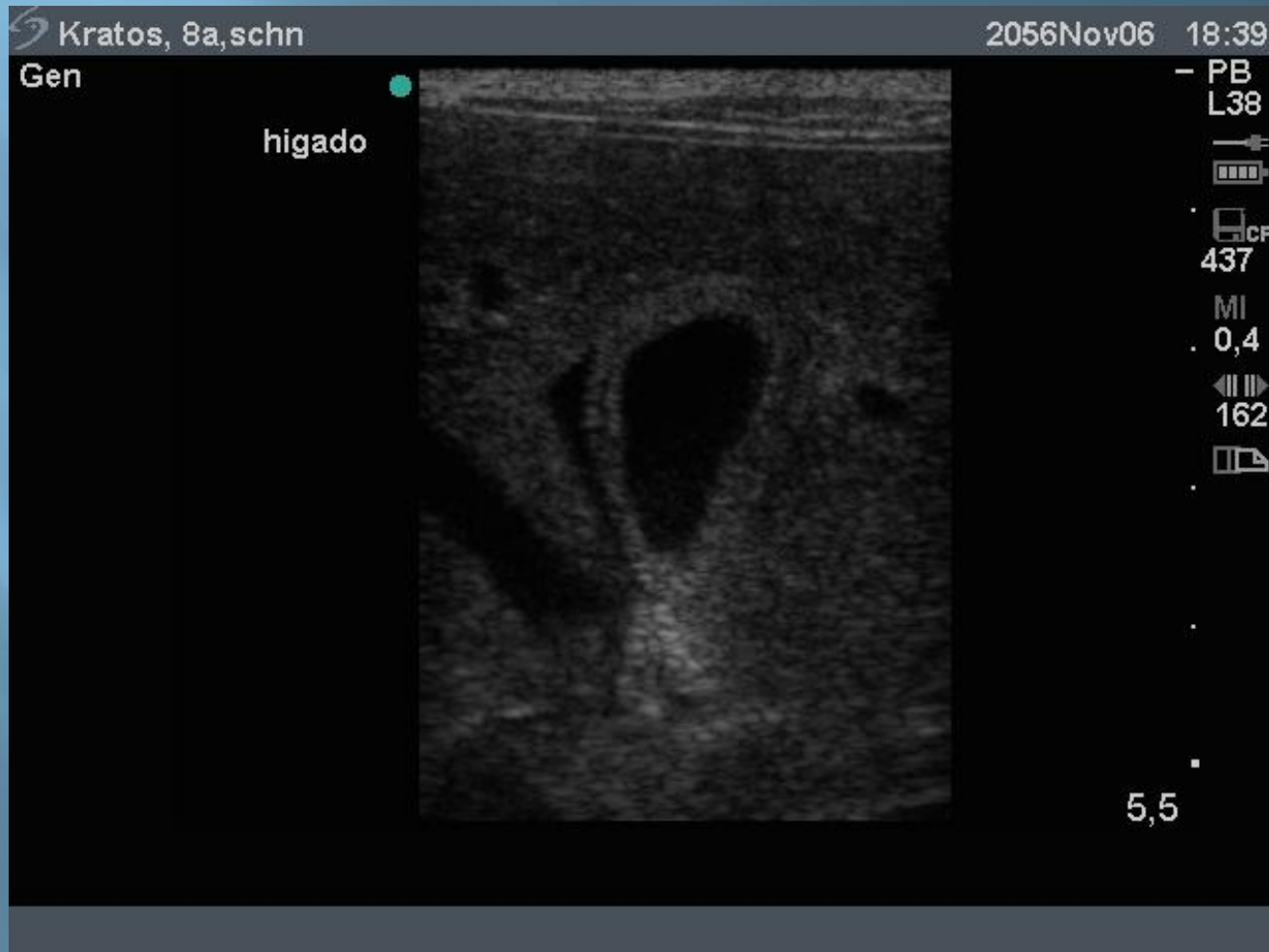
# Colecistitis



# Colecistitis



# Colecistitis



# Colecistitis

Lulu, SRD 10A  
Gen

Dra Lop.

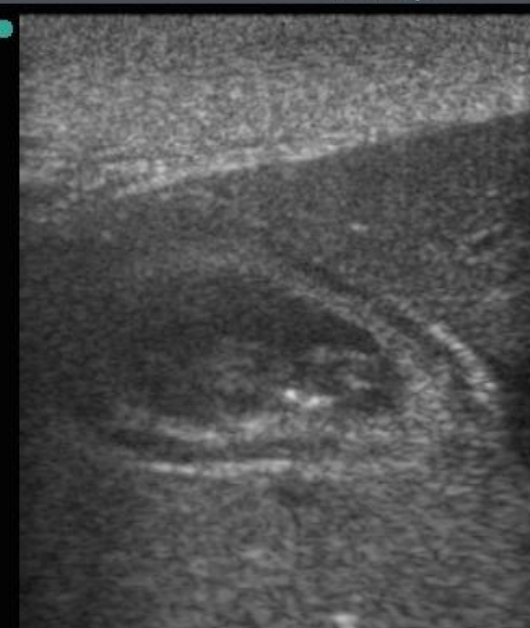
2009

Lulu, SRD 10A  
Gen

Dra Lop.

2009Jul11 08:14

COLECISTITIS



- PB  
L38  
CF  
532  
MI  
0,5  
185

4,6

Txt

Símbolos...



Linea

Txt

Símbolos...



Linea

Salir



# Colecistitis

Negro, SRD 8A Dra Lop. 2009Dic23 17:31

Gen vesicula biliar



5,5

– PB  
L38  
CF  
400  
MI  
0,4  
162

Txt Símbolos... X Linea Salir

Detailed description: This is a screenshot of a medical ultrasound software interface. The main window displays a grayscale B-mode image of a gallbladder. The gallbladder lumen is the dark, anechoic region on the left side of the image. The gallbladder wall is visible as a bright, echogenic ring. There is a noticeable thickening of the gallbladder wall, which is a key sonographic sign of cholecystitis. Additionally, there is some internal echogenicity within the lumen, possibly representing sludge or small stones. The interface includes a patient information bar at the top with the name 'Negro, SRD 8A', the operator 'Dra Lop.', and the date and time '2009Dic23 17:31'. On the left, there is a label 'Gen' and a green dot pointing to the gallbladder, with the text 'vesicula biliar' next to it. On the right, there is a vertical toolbar with various icons and numerical values: '- PB', 'L38', a battery icon, 'CF', '400', 'MI', '0,4', and '162'. At the bottom right of the image area, the number '5,5' is displayed. The bottom of the screen features a menu bar with options: 'Txt', 'Símbolos...', 'X', 'Linea', and 'Salir'.

Estasis biliar con  
acumulo de barro



Conducto cístico dilatado y con signo  
ecográfico de pseudopared

# Colecistitis

Xoschil 10a, schna, Dra. Dra Lop. 2011Nov21 10:52

Gen

vb colecistitis



6,5

- PB  
L38  
CF  
485  
MI  
0,4  
29

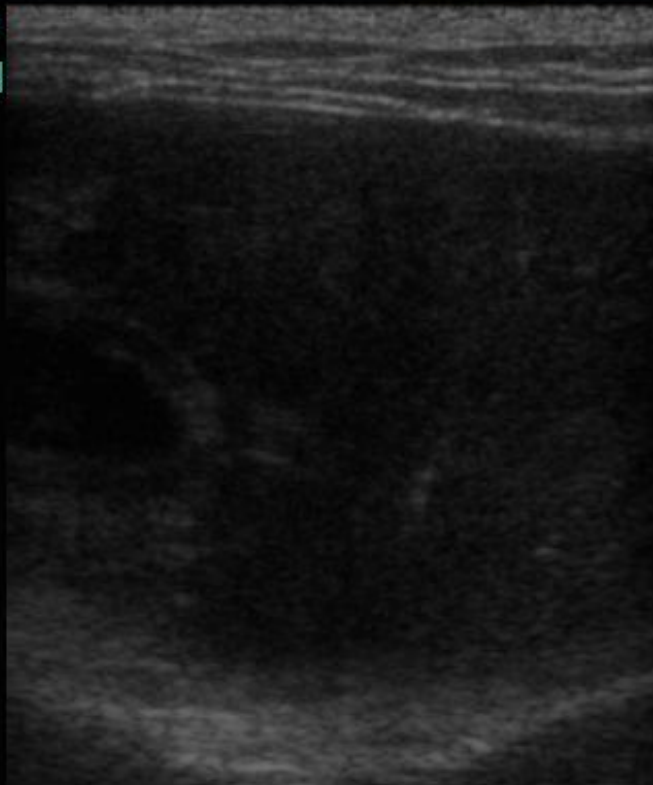
Txt Simbolos... X Linea Salir

Detailed description: This is a screenshot of a medical ultrasound interface. The top status bar shows patient information: 'Xoschil 10a, schna, Dra.', 'Dra Lop.', and the date/time '2011Nov21 10:52'. The main display area is split into three sections. On the left, the text 'Gen' is at the top, followed by a green dot and the text 'vb colecistitis'. The center section contains a grayscale ultrasound image of a gallbladder, showing a thickened wall and echogenic debris inside. On the right side of the image, there is a vertical list of technical parameters: '- PB', 'L38', a battery icon, 'CF', '485', 'MI', '0,4', '29', and a document icon. At the bottom right of the image area, the number '6,5' is displayed. The bottom of the screen features a control bar with buttons for 'Txt', 'Simbolos...', 'X', 'Linea', and 'Salir'.

# Colecistitis

yorkie, Nicole Dra Lop. 2011Sep01 14:13

Gen ● higadd



4,6

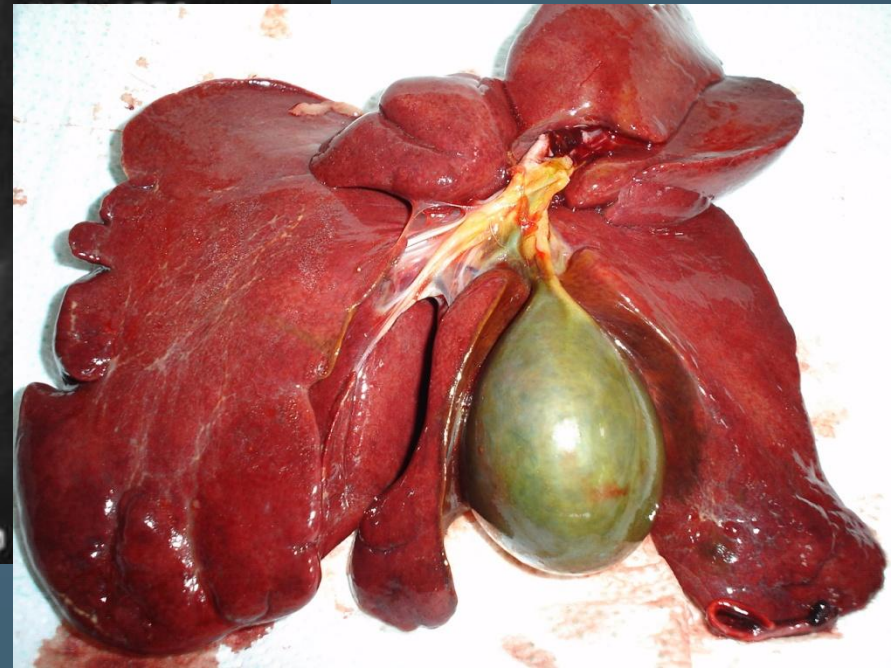
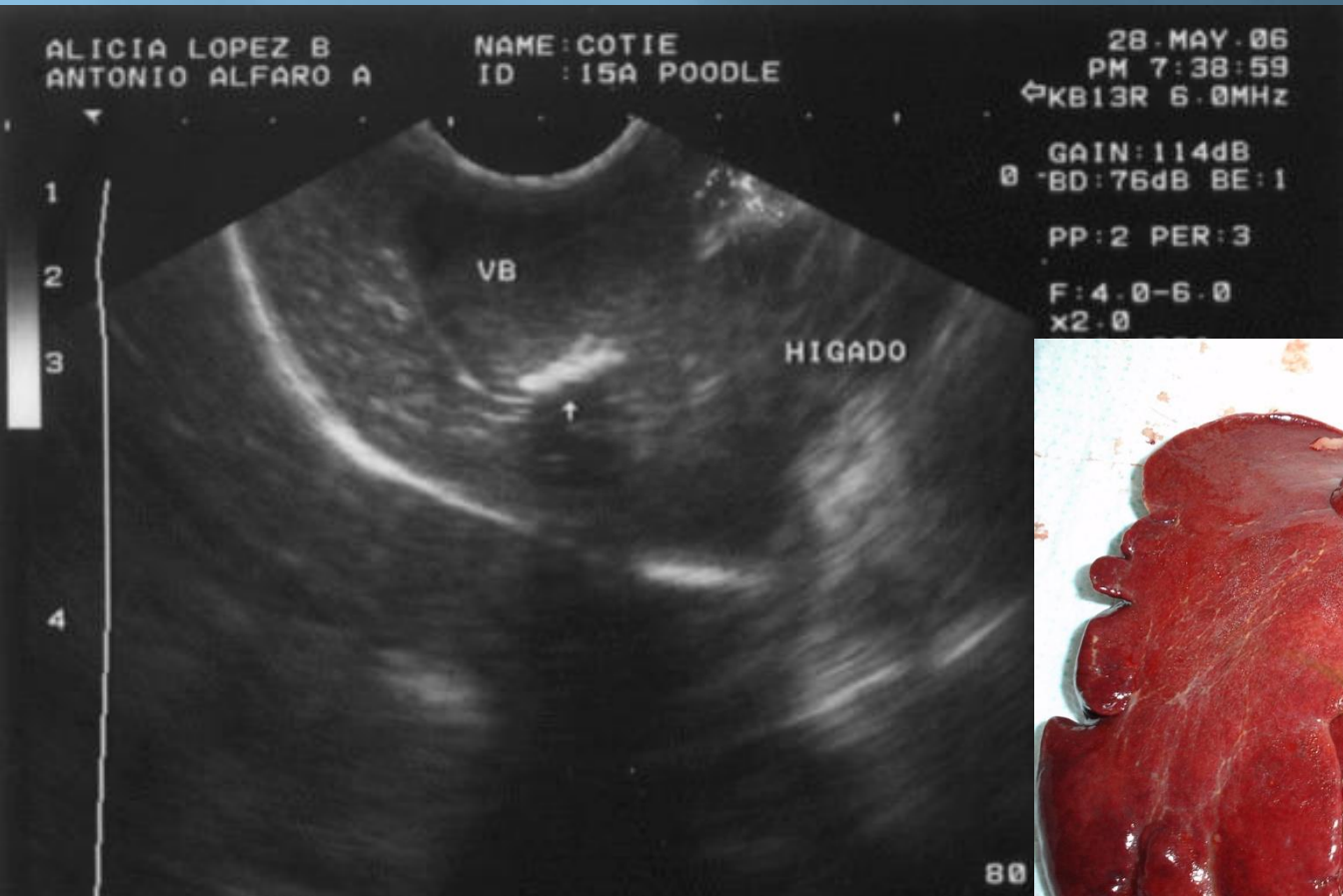
Txt Símbolos... X Linea Salir

System status icons: PB, L38, battery, CF 441, MI 0,5, signal strength 112.

# Cholelithiasis



# Colelitiasis



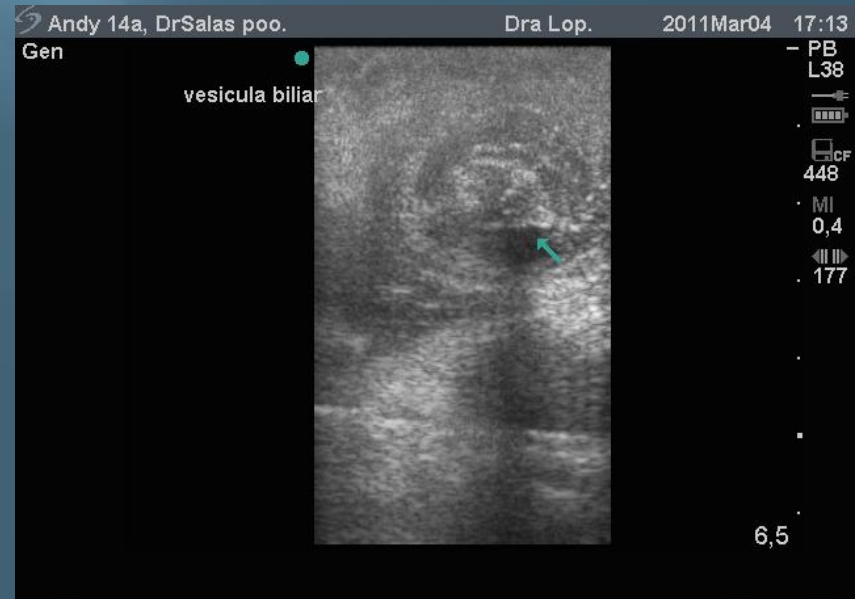
# Cholelithiasis



# Colectitis



Ileus parálitico



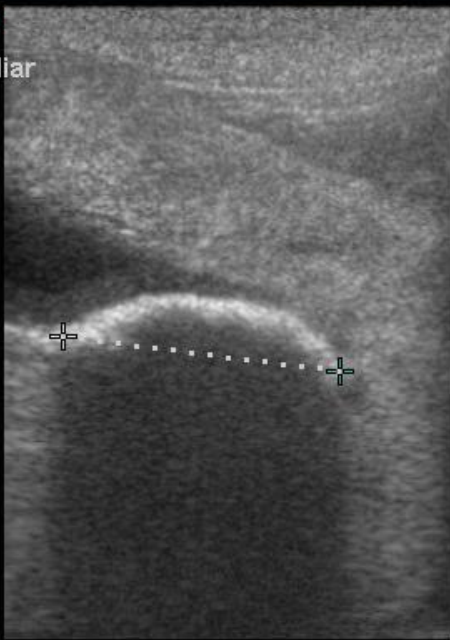


# Colelitiasis

Cleo schnausser, Dr H. Dra Lop. 2010Ago28 10:53 ser, Dr H. Dra Lop. 2010Ago28 10:53

Gen

calculo biliar



calculo biliar

Mam L38

calculo biliar

CF 541

MI 0,4

37

5,5

1cm

5,5

+ 2,39cm

# Colelitiasis

Poodle, hembra, DrVilla. 2012Jul20 13:58

Gen ● coleelito



- PB  
L38  
CF  
.494  
MI  
0,5  
75

3,9

Poodle, hembra, DrVilla. 2012Jul20 13:59

Gen ●



- PB  
L38  
CF  
.492  
MI  
0,5  
75

3,9

Símbolos...

Linea

Salir

# Mucocele

- ▣ El mucocele biliar es una acumulación normal de mucina acompañado de hiperplasia del muco secretado por el epitelio.
- ▣ Presenta un patrón inmóvil y finalmente estriado o estrellado en la ecografía

# Formación de mucocele



# Mucocele



# Mucocele



# Obstrucción biliar

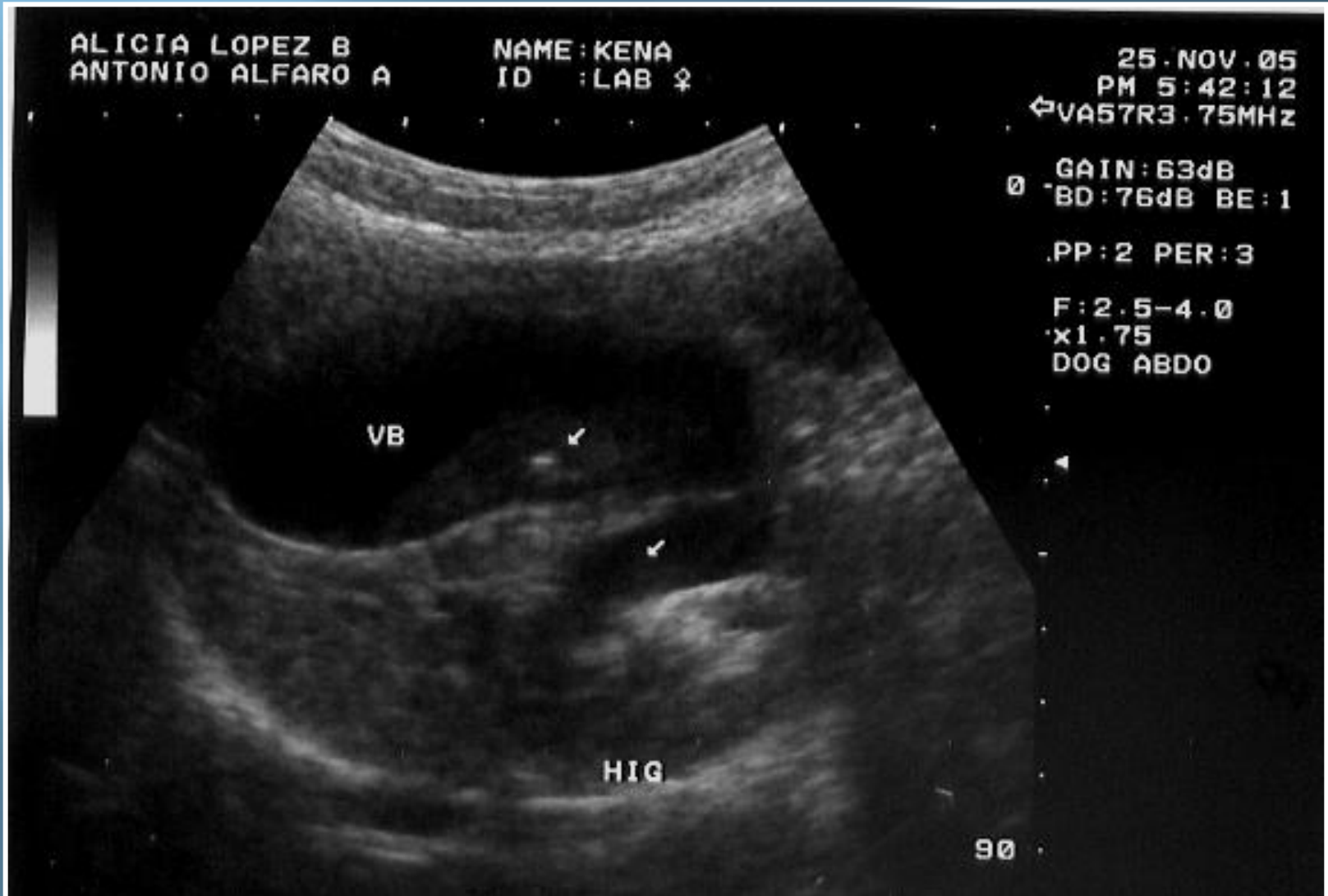
- ▣ Pancreatitis
- ▣ Cálculos biliares
- ▣ Neoplasia biliar
- ▣ Dilatación retrógrada
  - Ducto biliar-2 días
  - Vesícula biliar
  - Dilatación intrahepática- márgenes similares a un saco, tortuosos- después de 5-7 días de obstrucción.

# Obstrucción biliar intrahepática





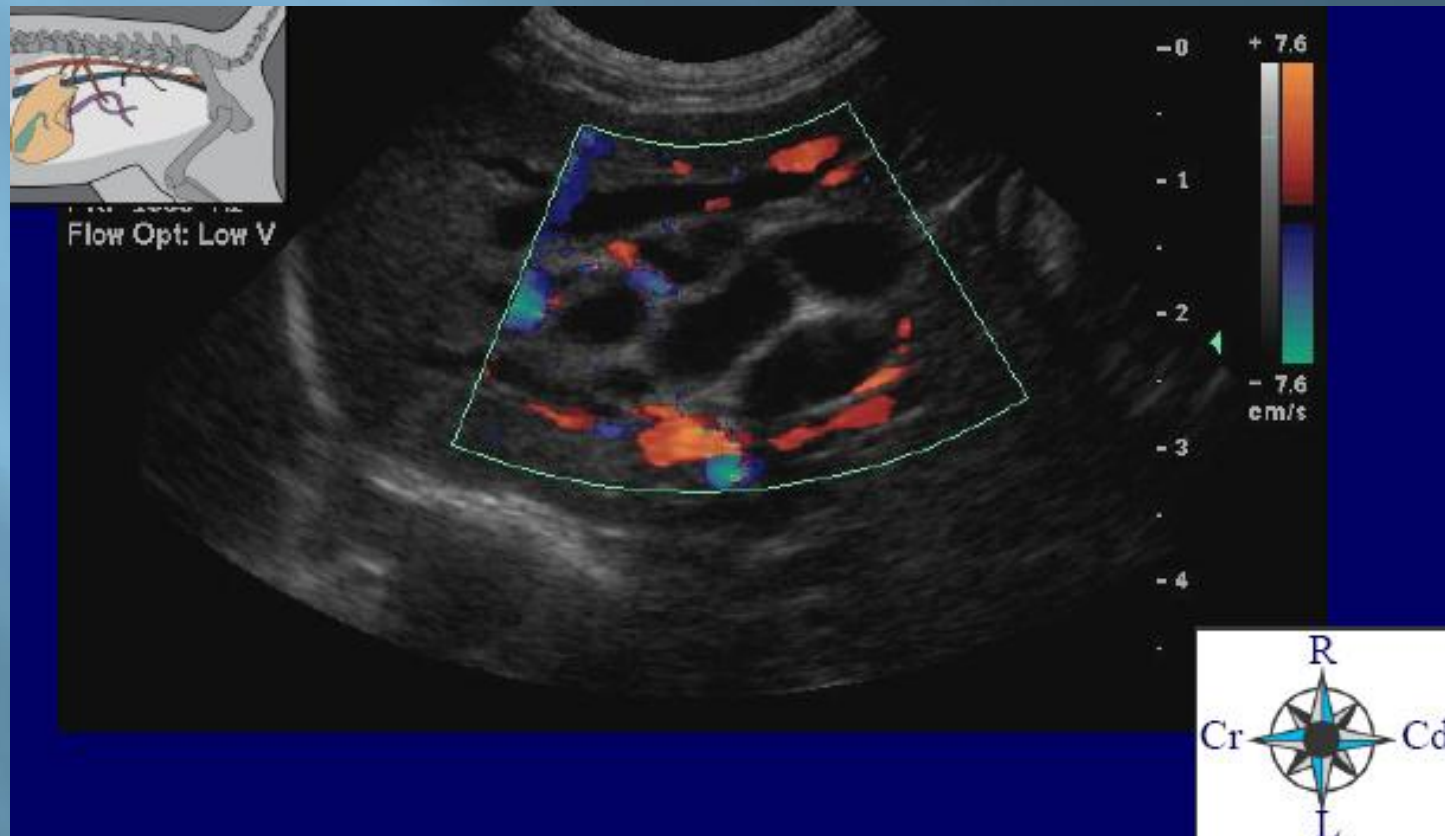
# Colédoco dilatado



# Dilatación intrahepática



# Dilatación intrahepática



# flóculos – vesícula biliar

## *Platynosimum consinum*



Motivos de  
consulta más  
frecuentes

- Anorexia
- Vómito

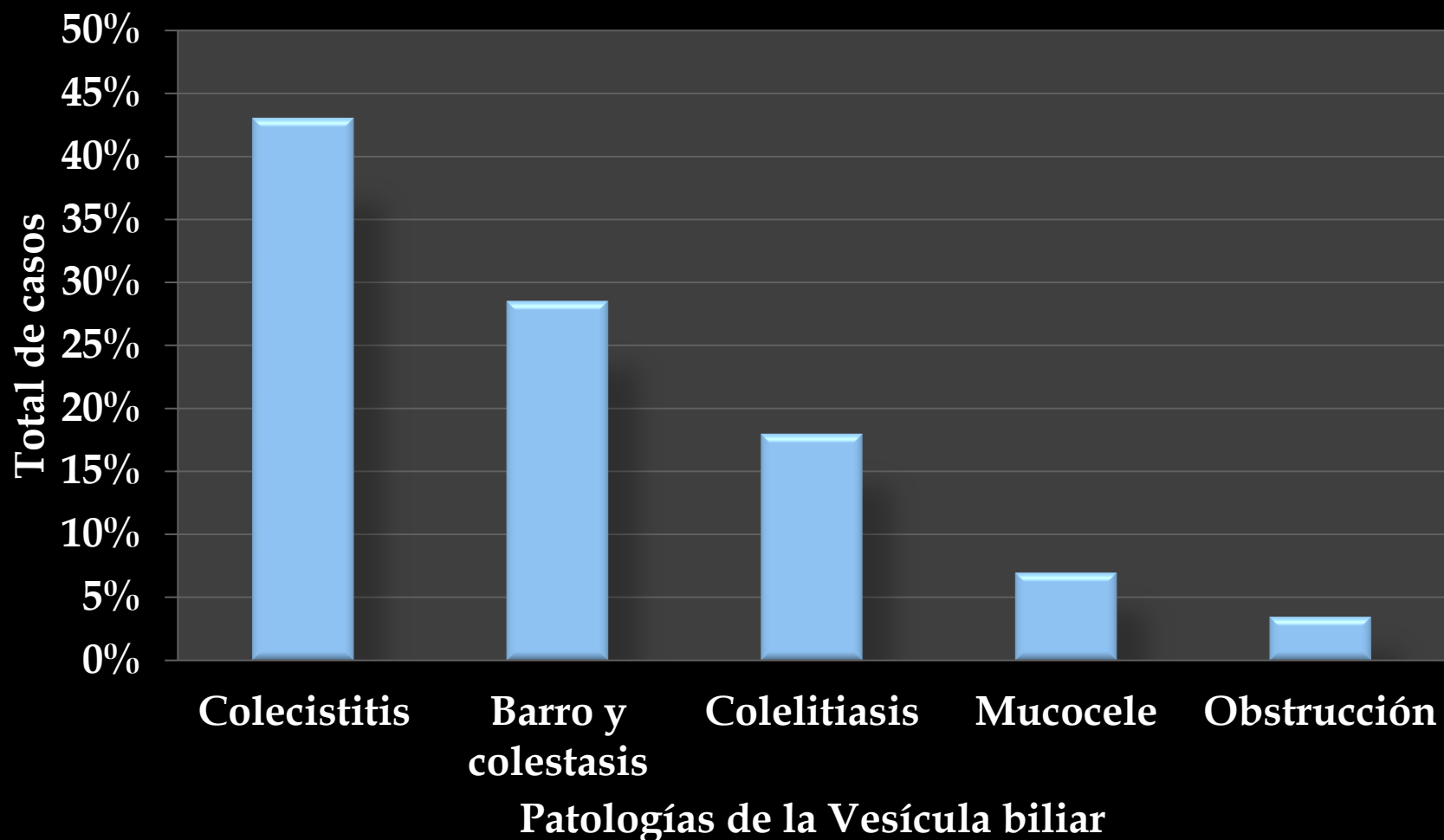
Exámenes  
realizados antes  
de la ecografía

- Enzimas hepáticas elevadas
- Leucograma alterado

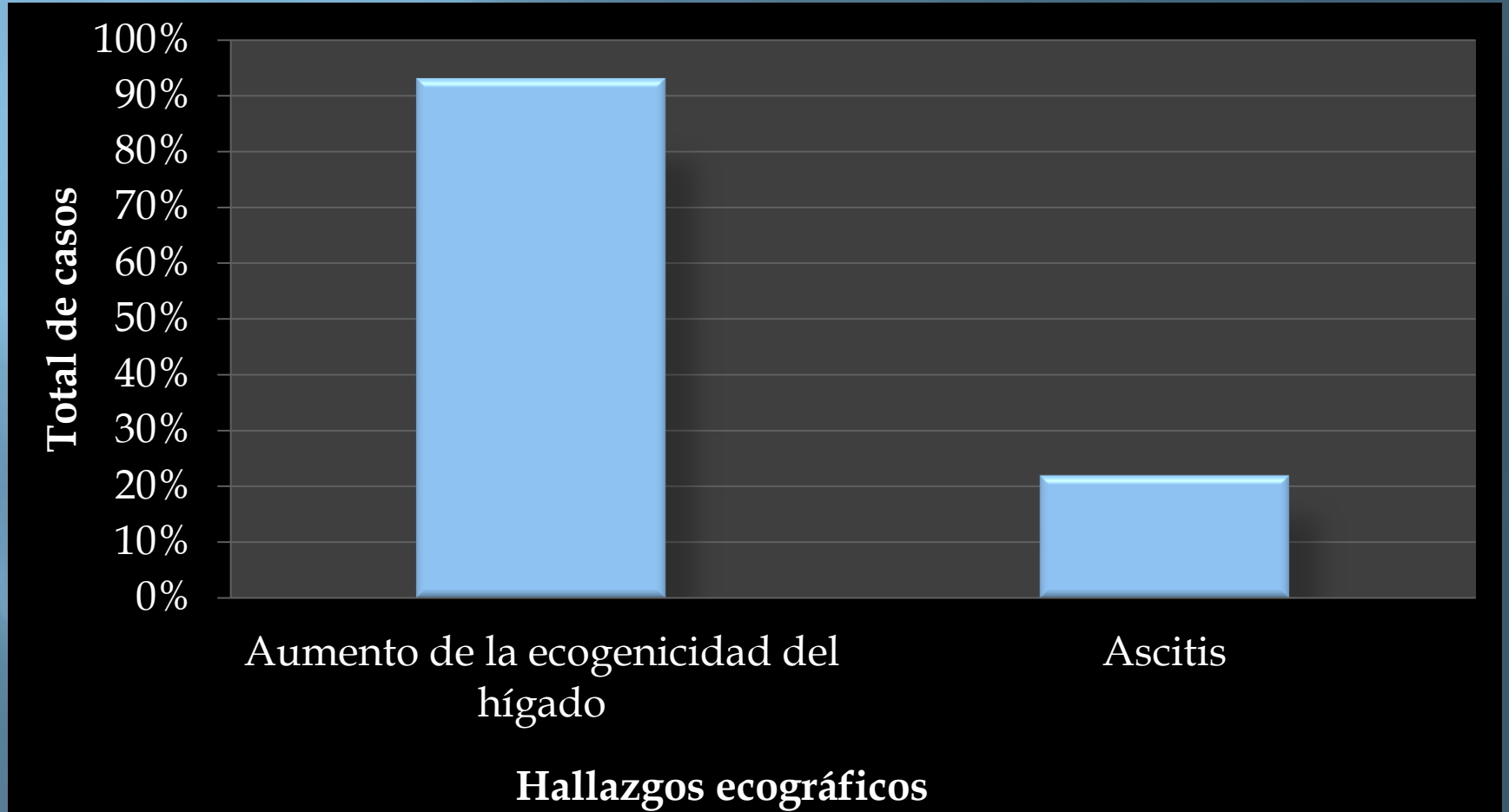
Hallazgos más  
comunes en la  
revisión

- Ileus paralitico
- Dolor palpación cuadrante superior derecho

# Porcentaje de enfermedades de la vía biliar en especies menores, según clasificación. CVDITC, Costa Rica, 2006-2012.



# Porcentaje de hallazgos ecográficos externos concomitantes a la patología biliar en especies menores, CVDITC. Costa Rica, 2006-2012.



# Conclusiones Colecistectomía o no

▣ Litiasis Sintomática



Litiasis Asintomática





# Conclusiones

- ▣ La ecografía es la técnica ideal para la evaluación de la vesícula biliar es más rápida, segura, permite diferenciar entre obstrucciones intrahepáticas de extrahepáticas.
- ▣ Un diagnóstico correcto conlleva a un pronóstico favorable.
- ▣ Necesidad de realizar estudios a largo plazo de animales con colecistectomía.

# Conclusiones

- ▣ Presencia de colecistitis sin sintomatología clínica:
  - Investigar sobre:
    - ▣ Hepatitis aguda o crónica
    - ▣ Colangiohepatitis
    - ▣ Hipoalbuminemia
    - ▣ Falla cardiaca congestiva pasiva derecha