

# Maladie de Crohn : Qui de l'écho

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CHU Amiens - Péronne



## LE TUBE DIGESTIF EN ECHO

**Premier choix :**

Appendicite

MICI

**Utile :**

Diverticulite

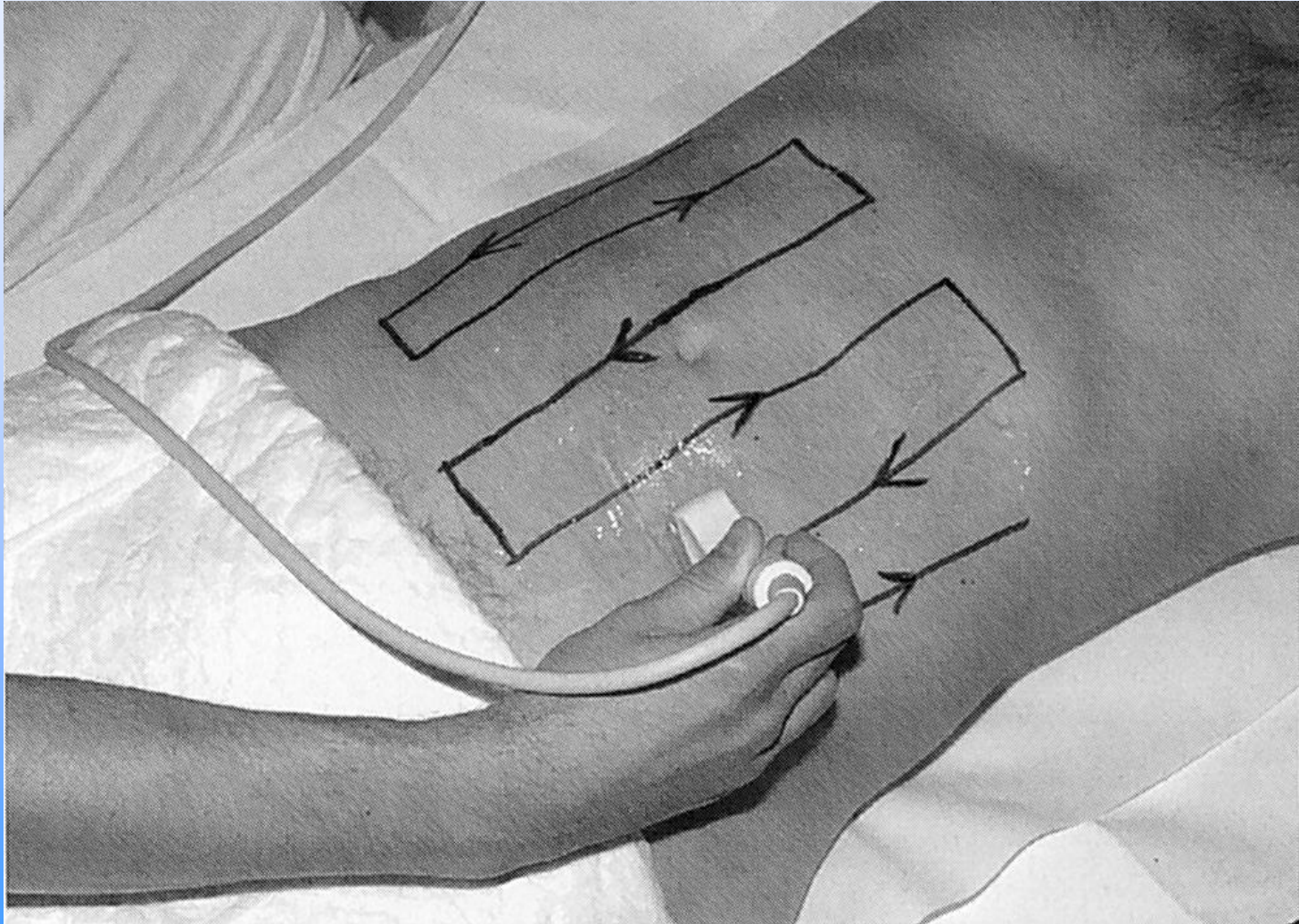
« ite »

# LE TUBE DIGESTIF EN ECHO

- Remarques techniques
- Aspect US normal
- => Généralités
- => Segments
- Estomac
- Grêle
- Colon
- Appendice
- Appendices épiploïques

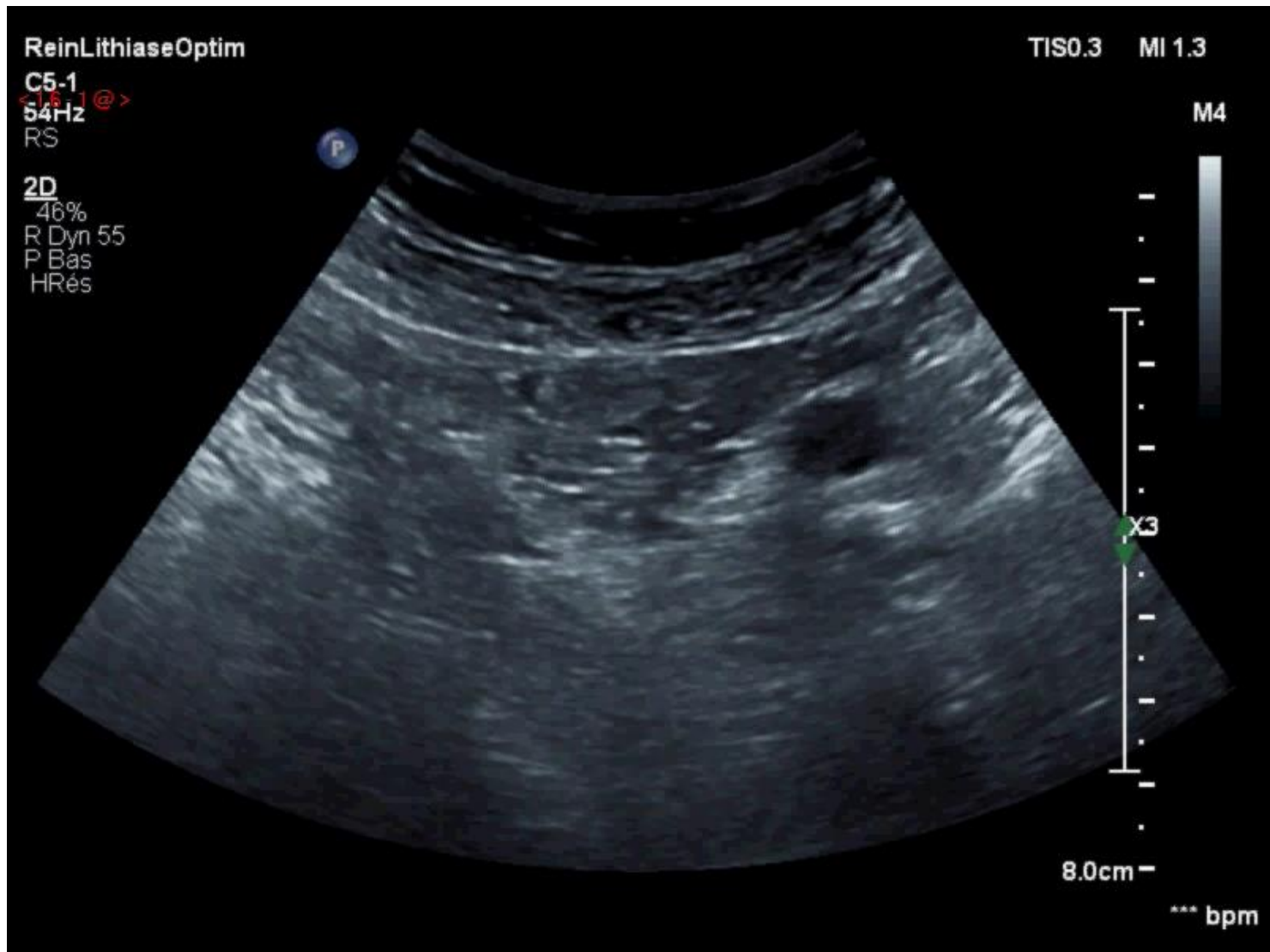
- Situations cliniques de base
- Appendicite et dd
- Diverticulite
- MICI
- Colites

## Technique



*Sturm et al Eur Radiol, 2004*

# Technique



PHILIPS

ITm0.1 IM 0.6

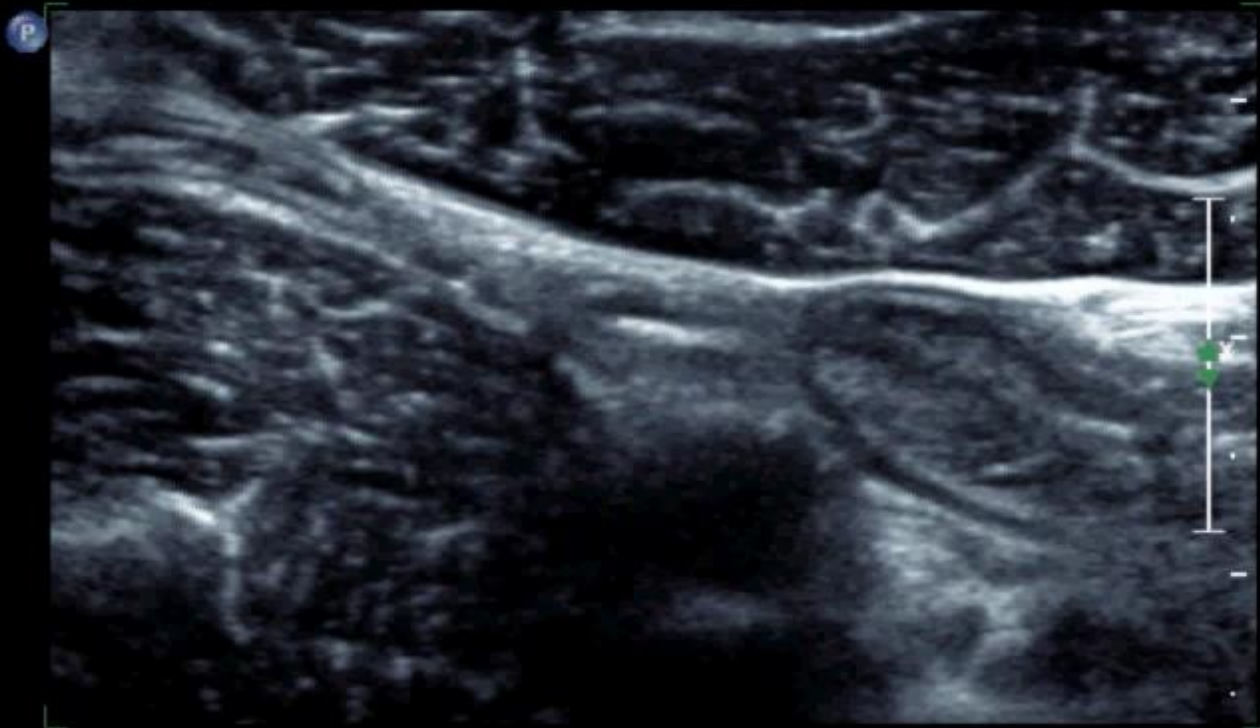
L12-5/TbDigestif Opti

<14.10>  
CI 46Hz  
V1

AGC

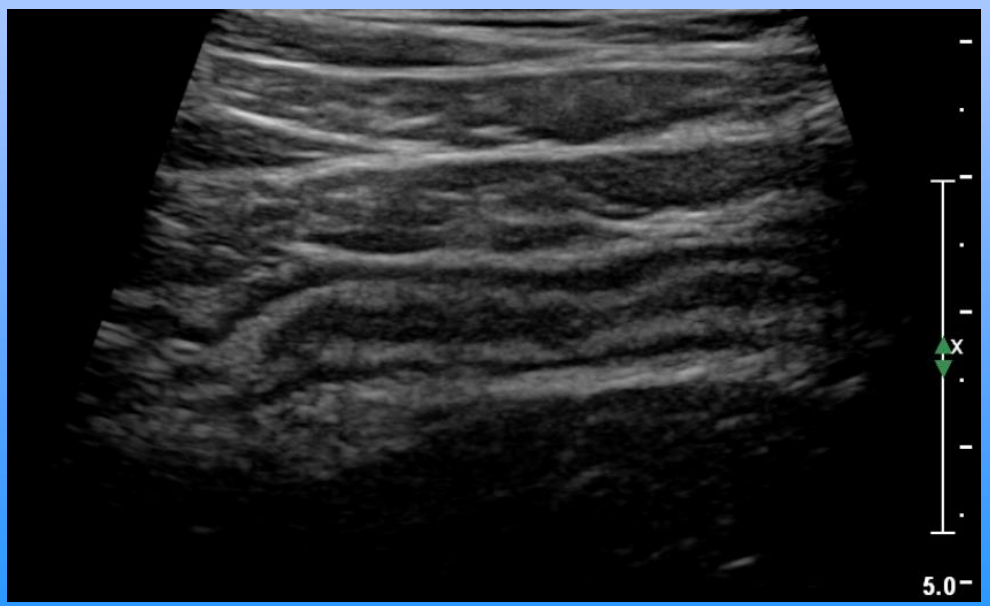
C2

2D  
71%  
C 53  
P Bas  
Rès



JPEG

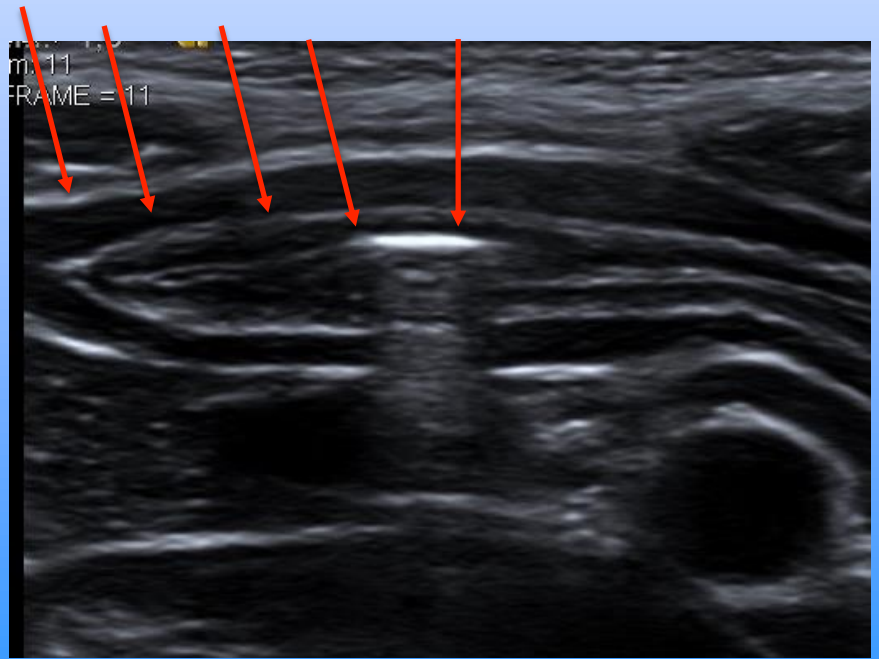
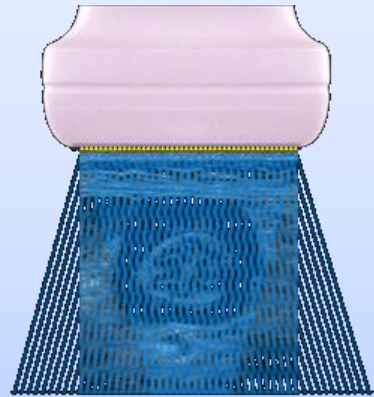
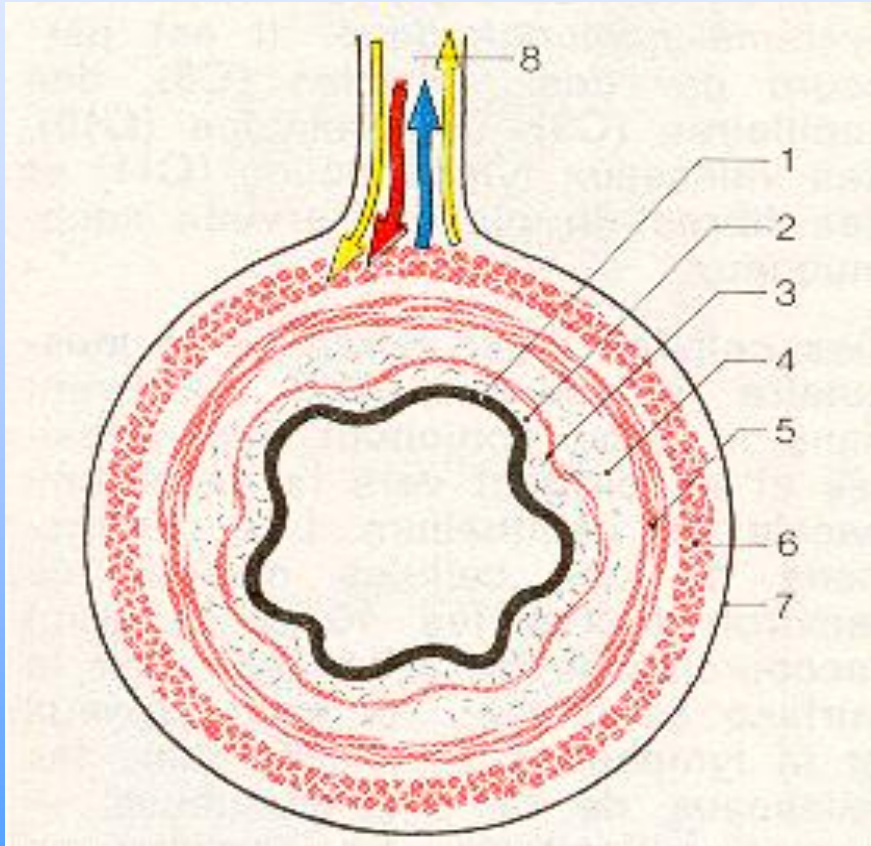
\*\*\* bpm



Analyse du tube digestif en US :  
Sonde de basse fréquence  
Sonde de haute fréquence

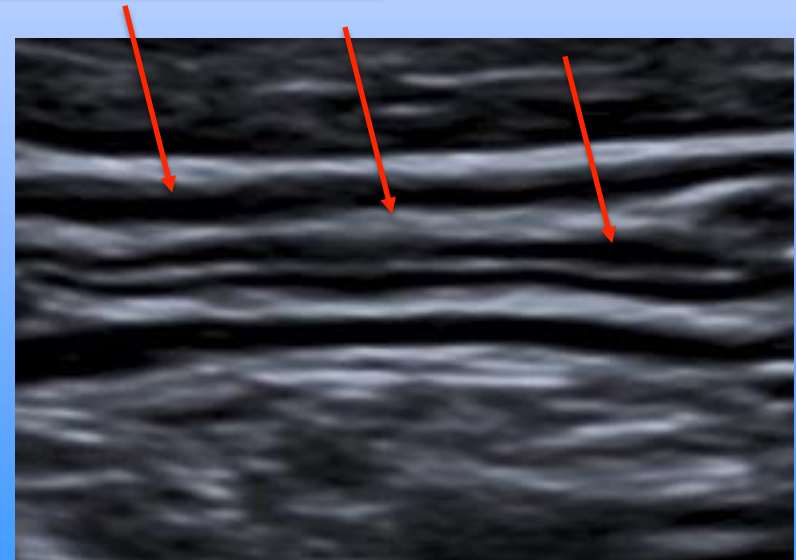
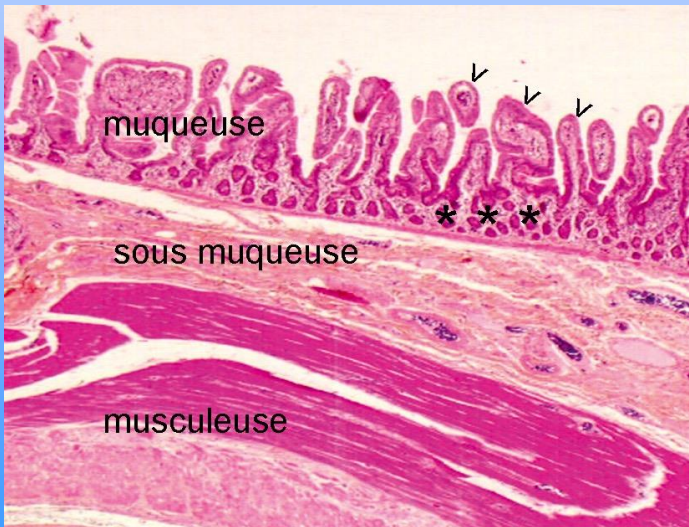


# Aspect US normal du tube digestif : la signature digestive

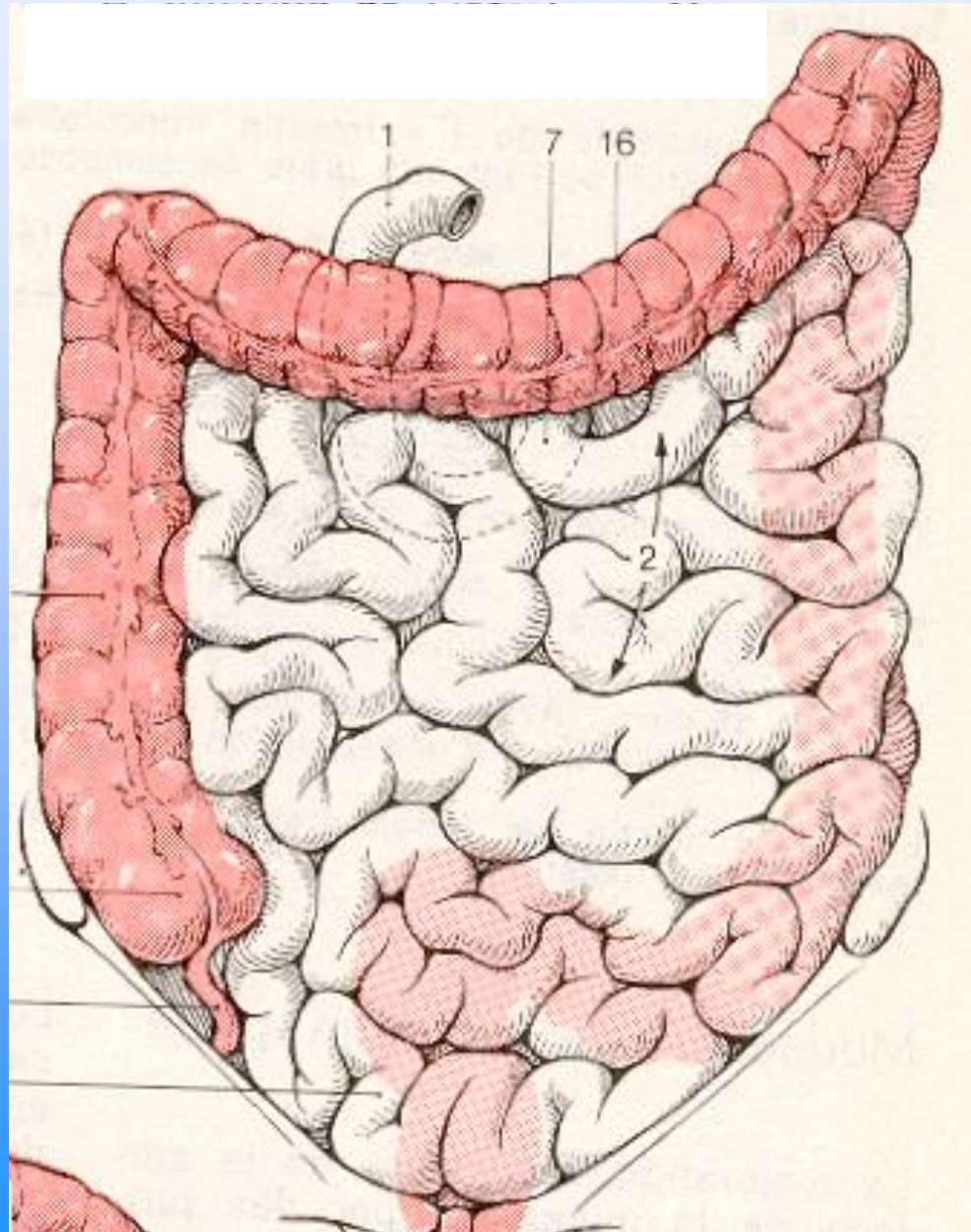


## Paroi digestive normale

muqueuse : hypo  
ss muqueuse : hyper  
muscleuse : hypo  
fine séreuse



# Aspect US normal du tube digestif en fonction du segment



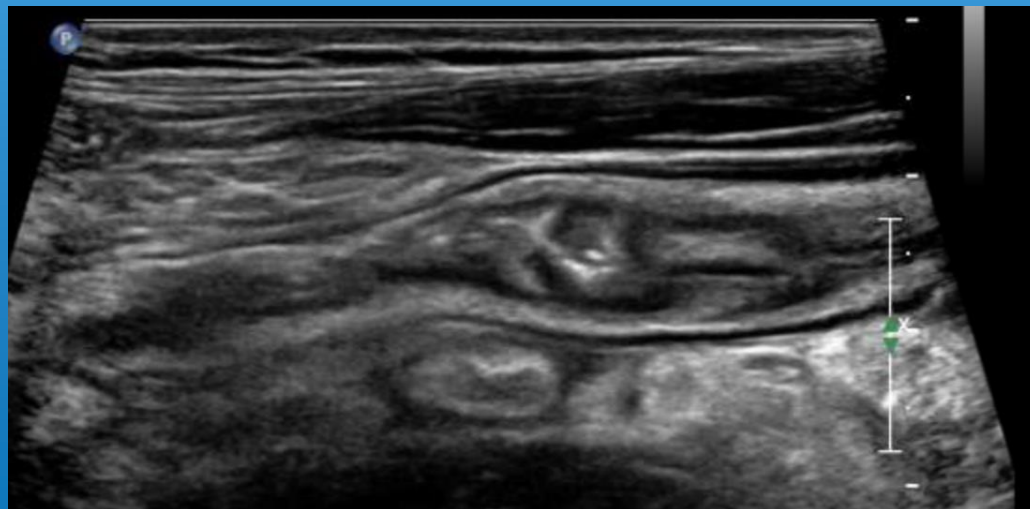
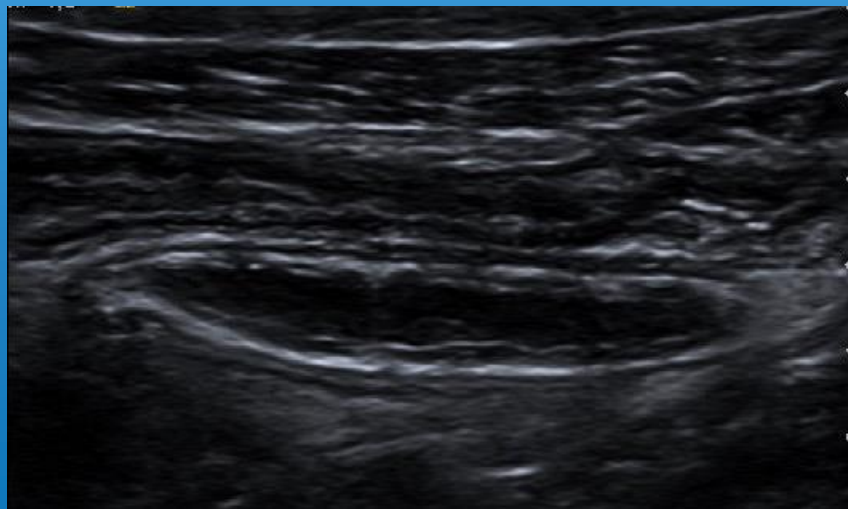
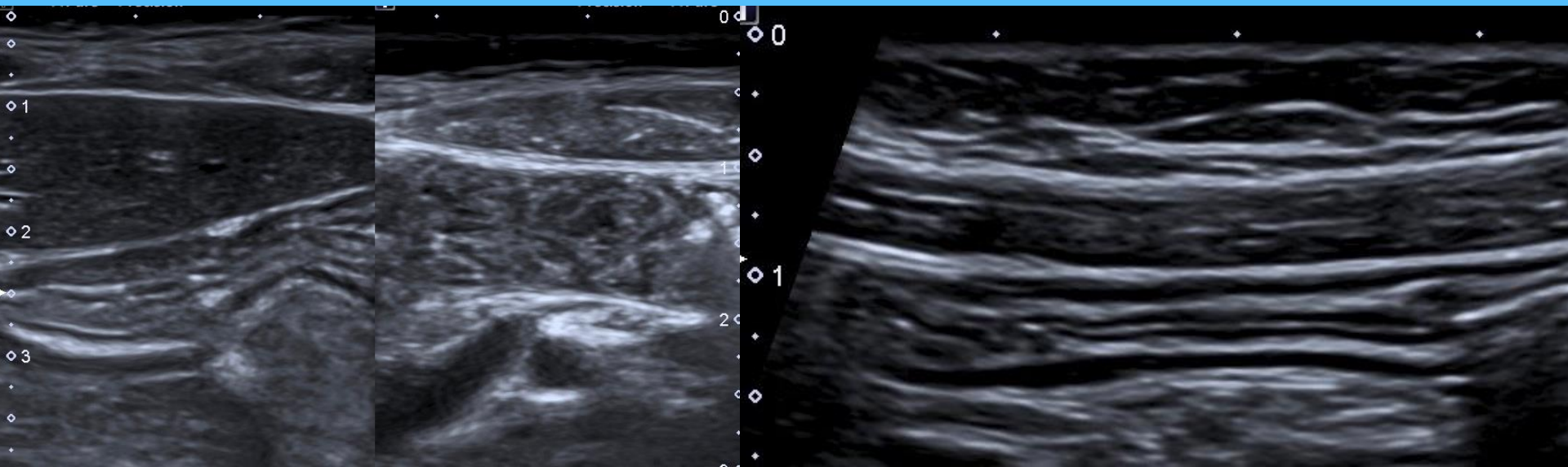
# REPERES ANATOMIQUES

épigastre : estomac / duodénum

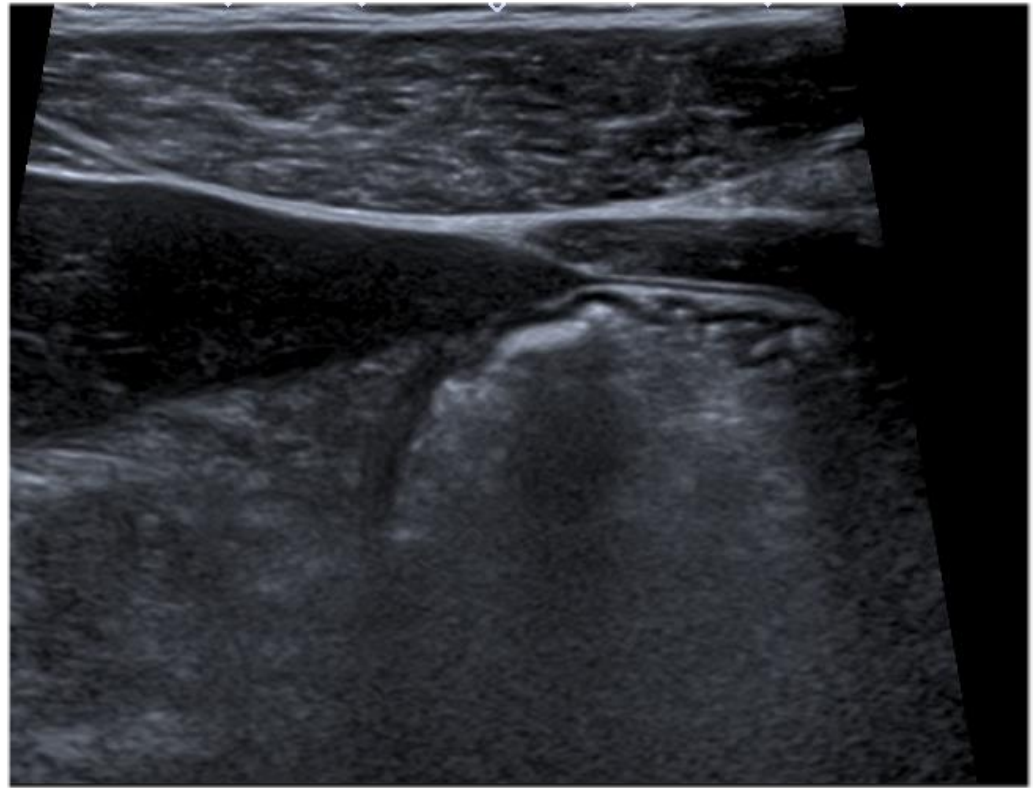
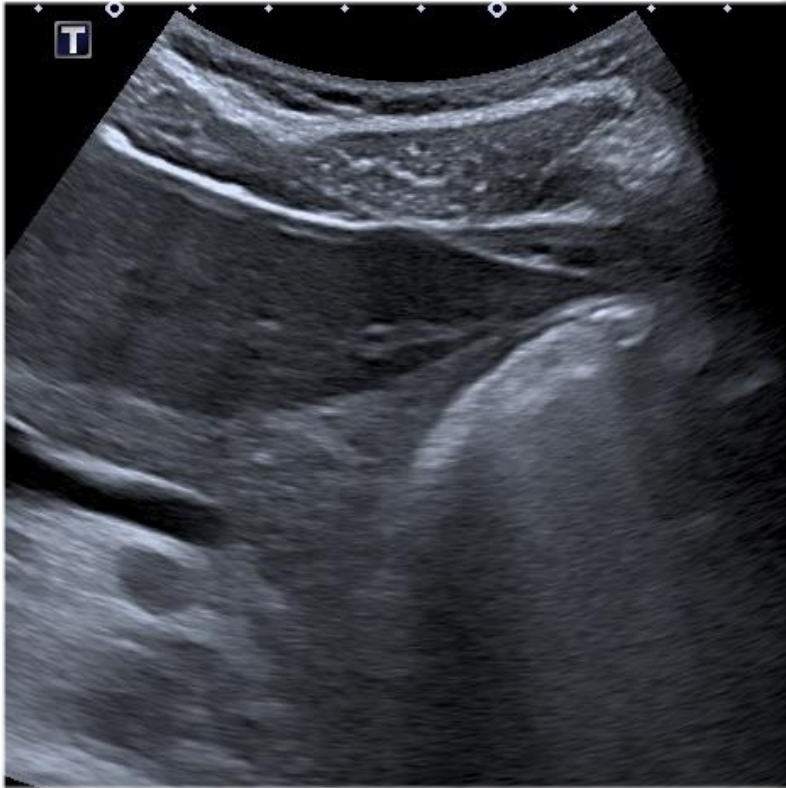
flanc droit : duodénum / colon dt

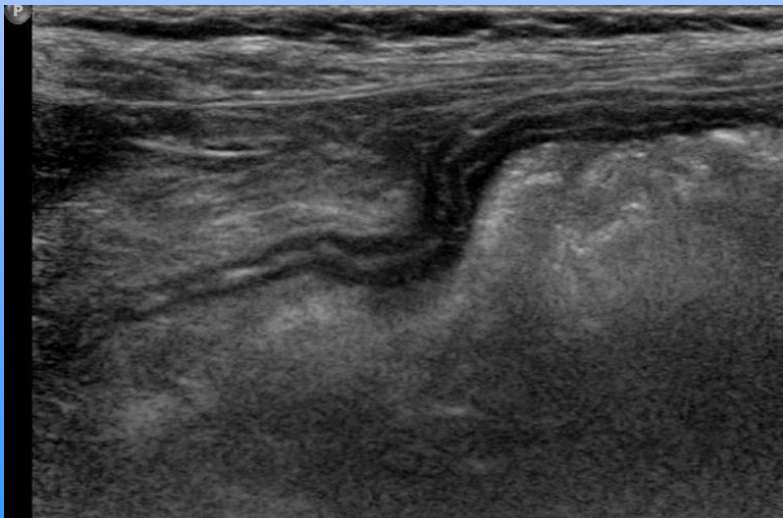
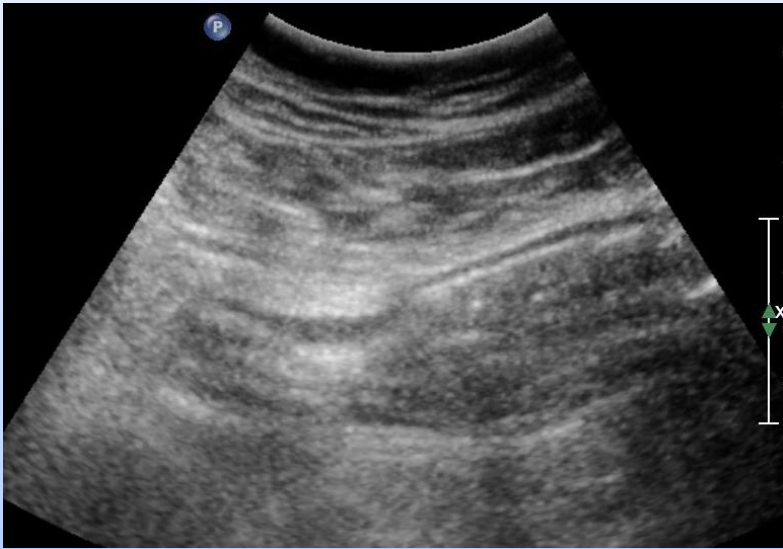
compartiment médian: grêle

flanc gauche : colon g / sigmoïde



# Estomac .....



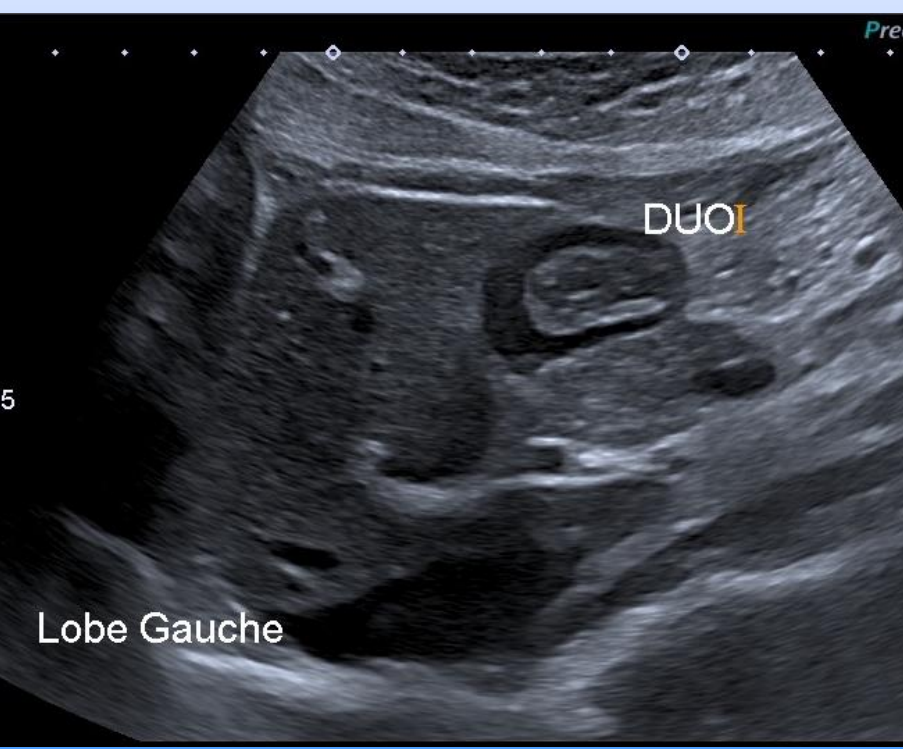


Aspect normal des parois gastriques:

- US basses fréquences
- US hautes fréquences
- CT

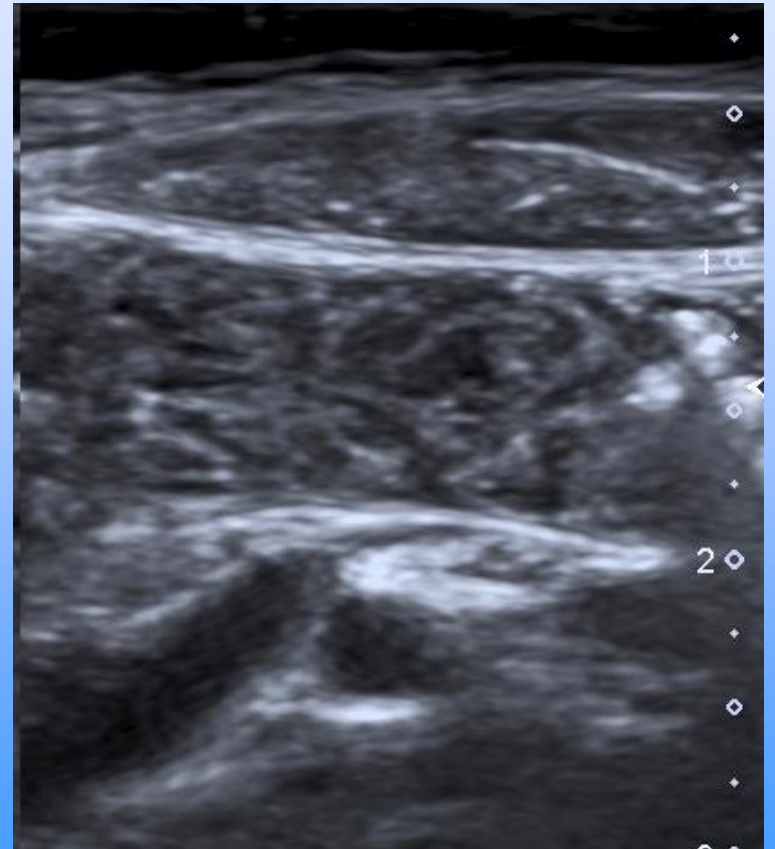
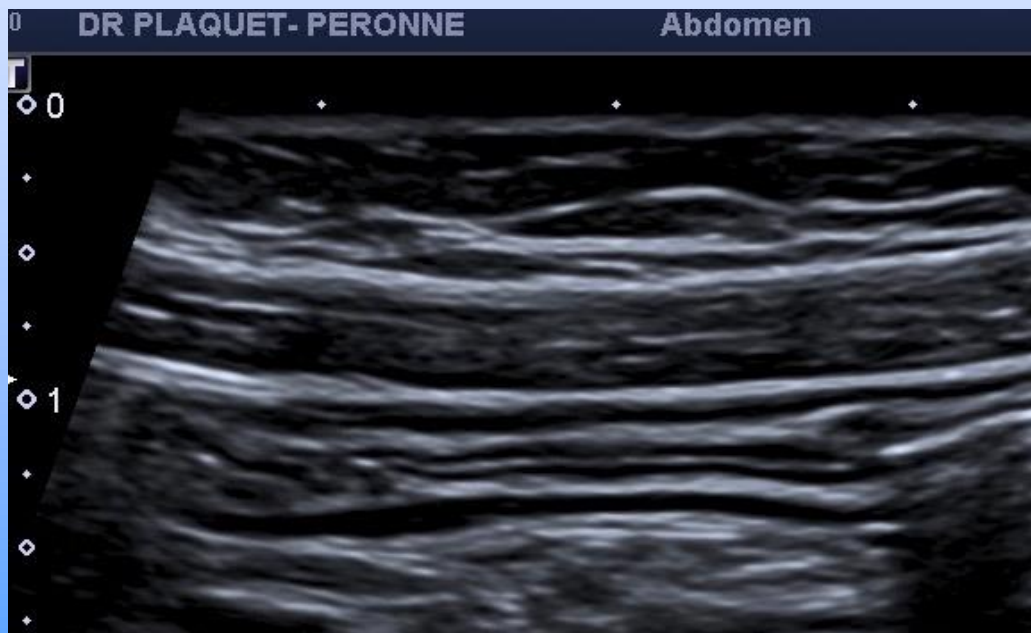
Chez le même patient

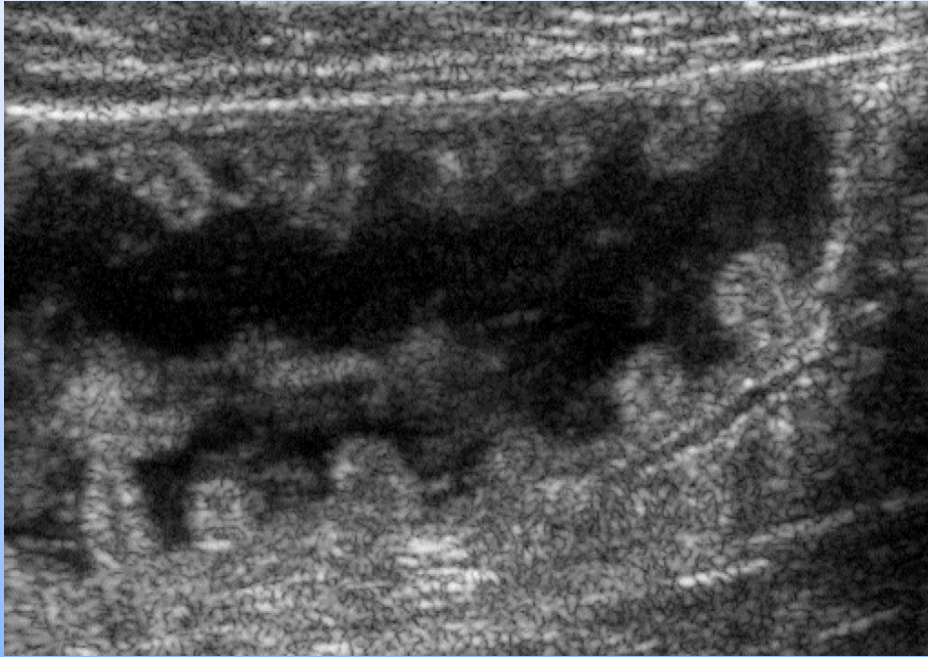
# DUODENUM



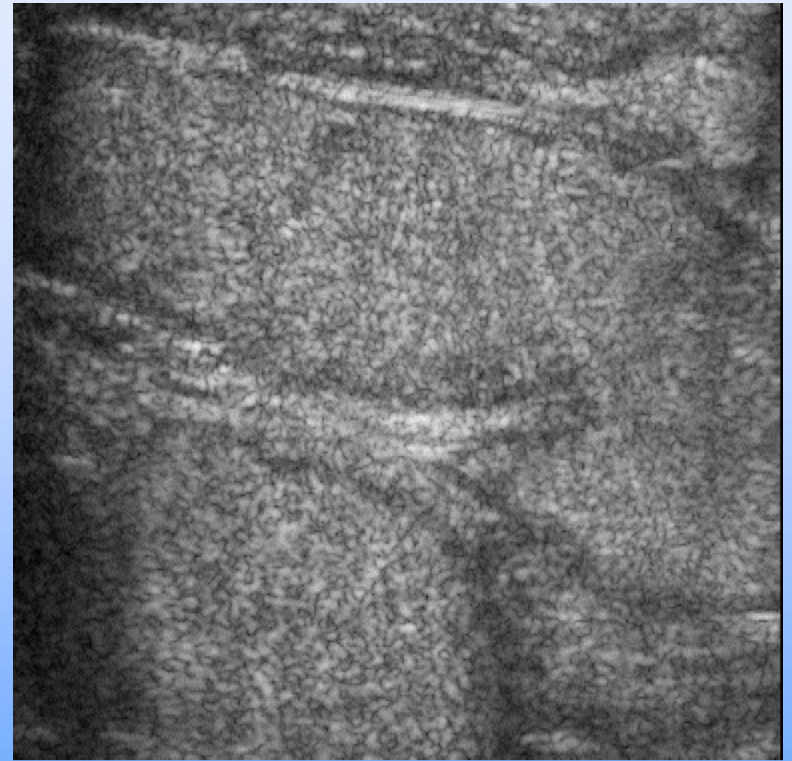


# Grêle

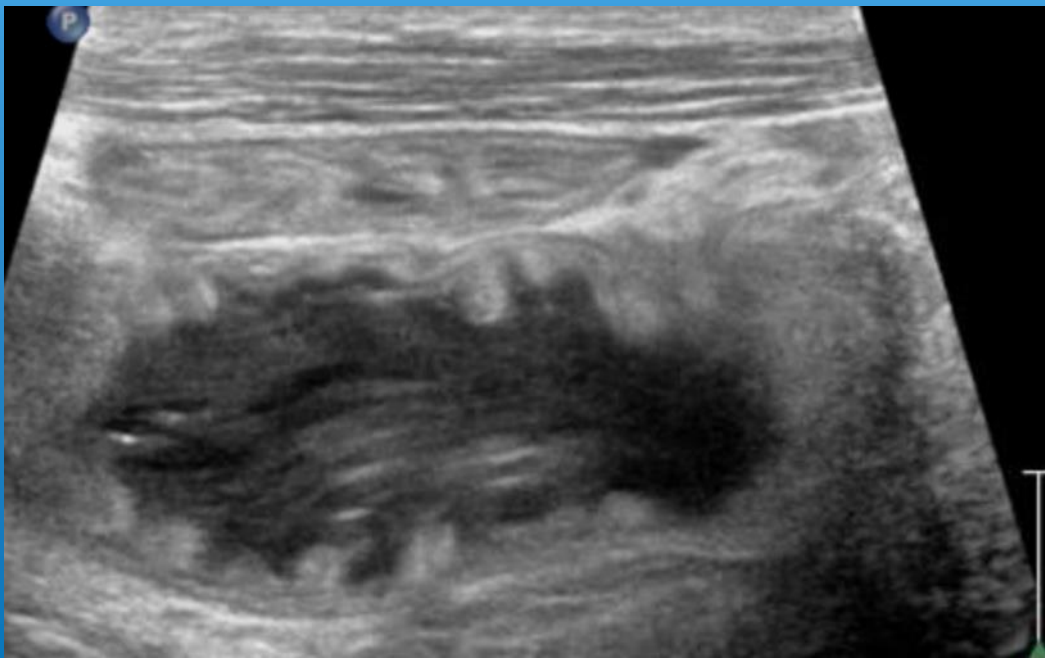
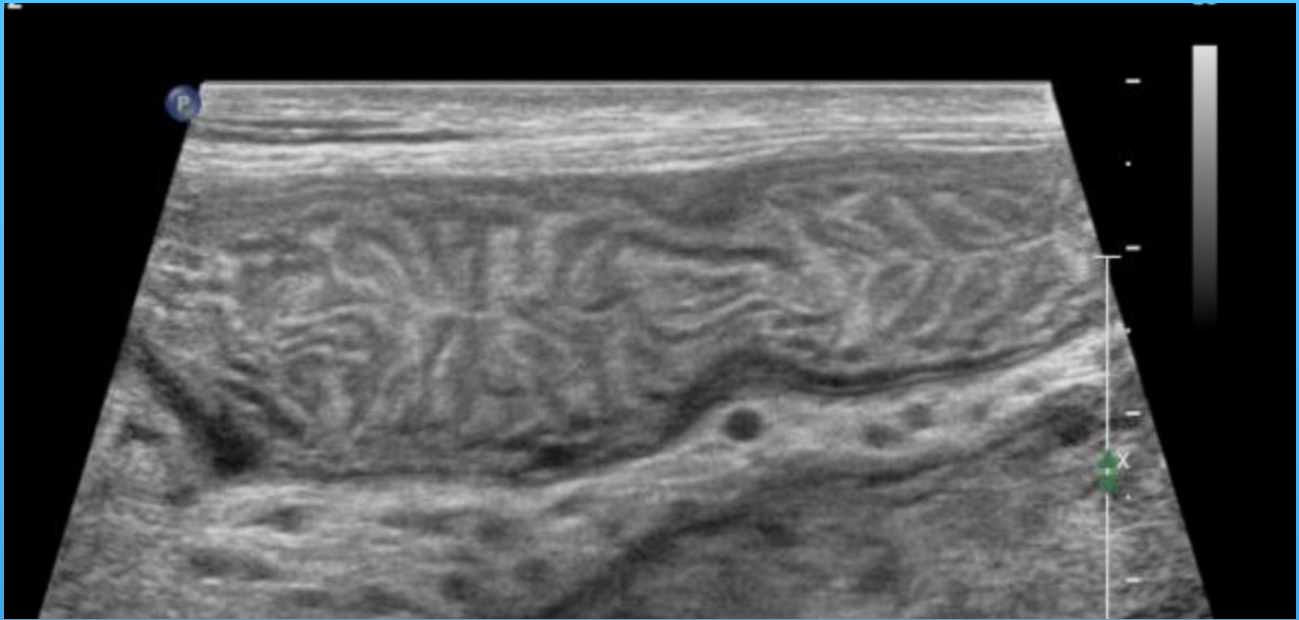


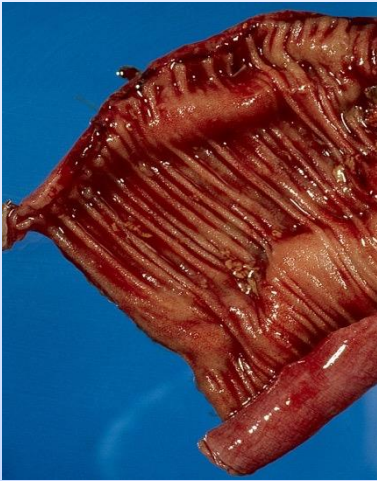


Jejunum

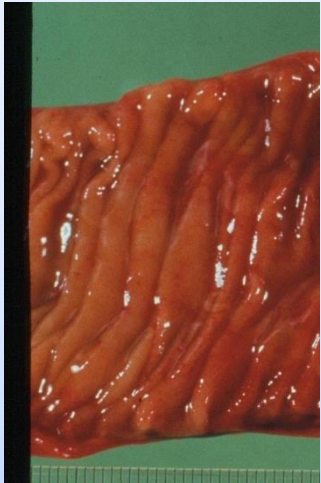


Ileum



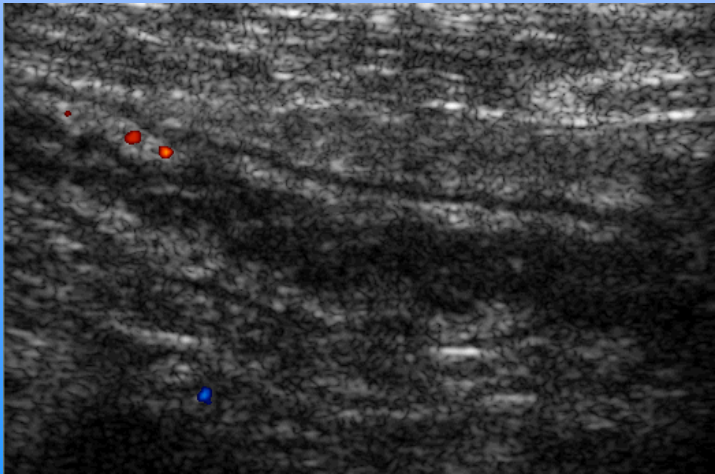
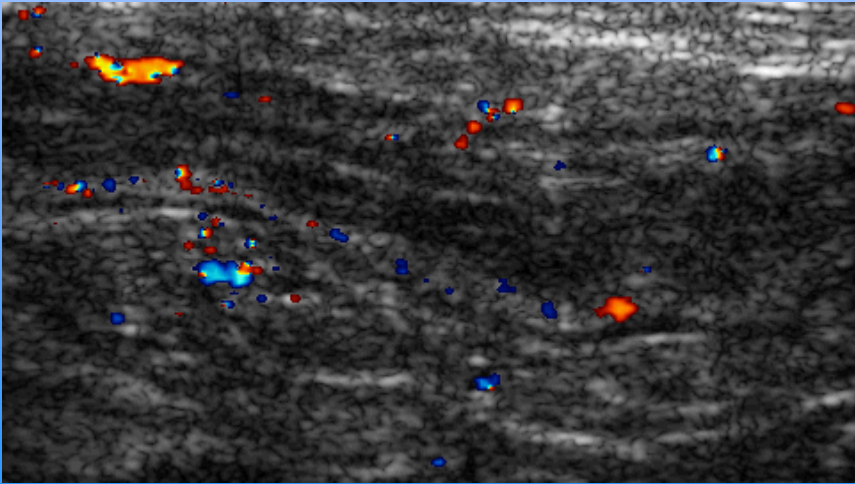


# Grêle



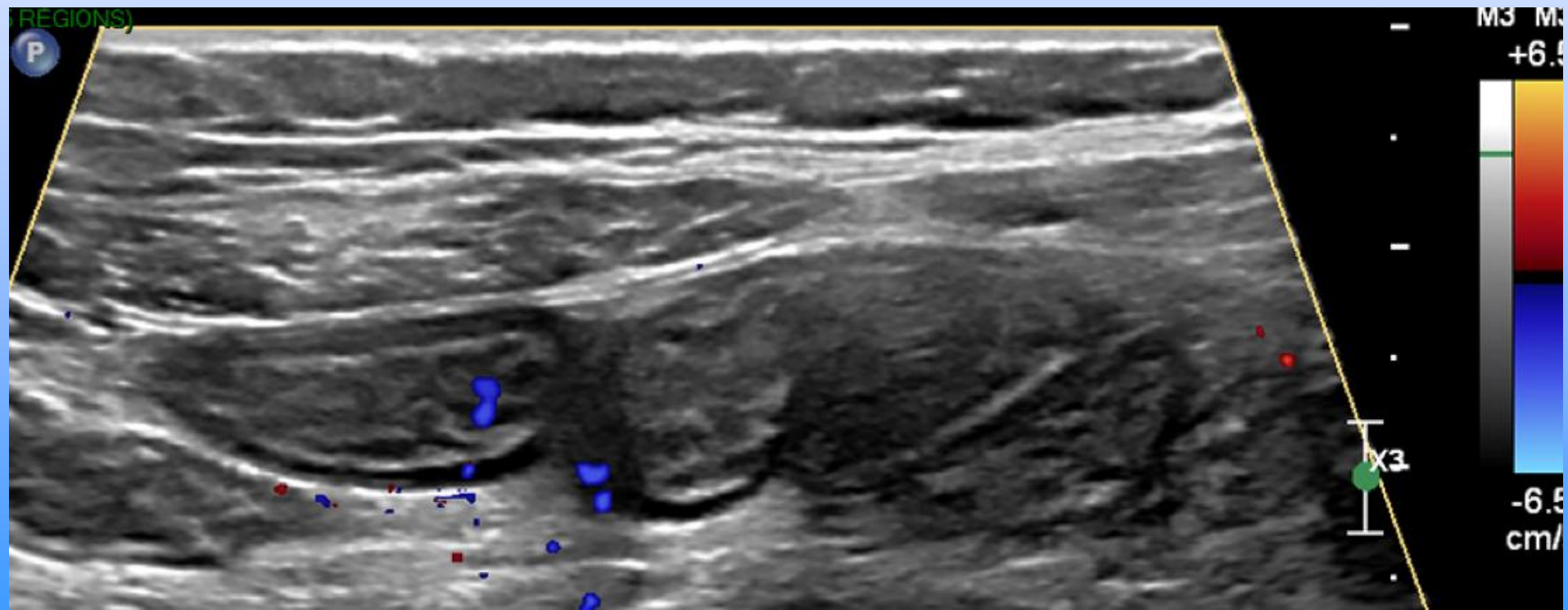
Paroi < 3 mm

Stratification

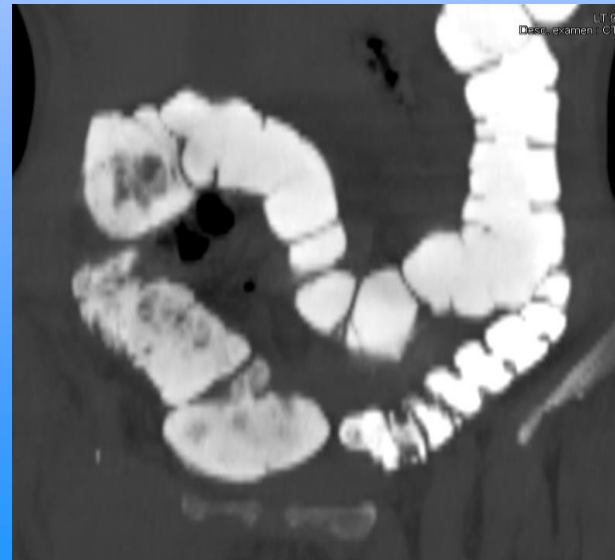
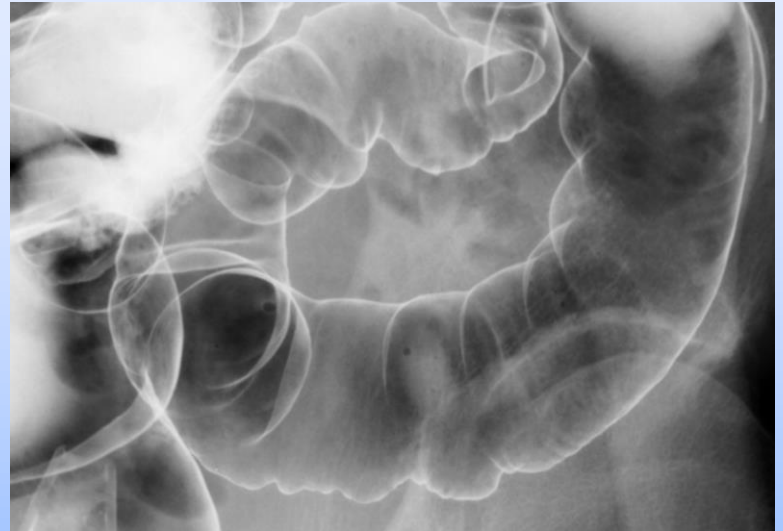


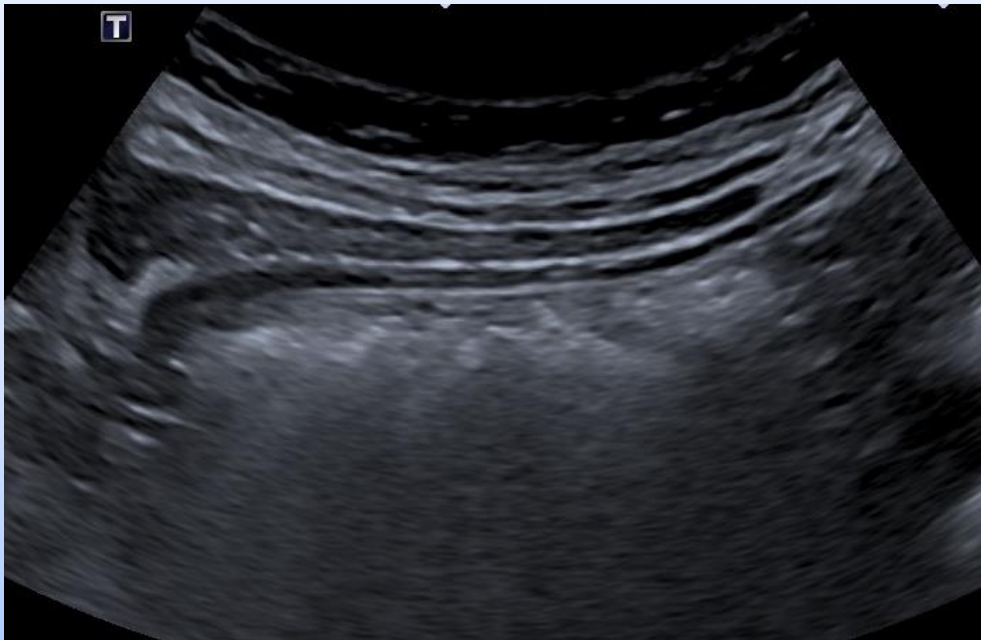
## Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement



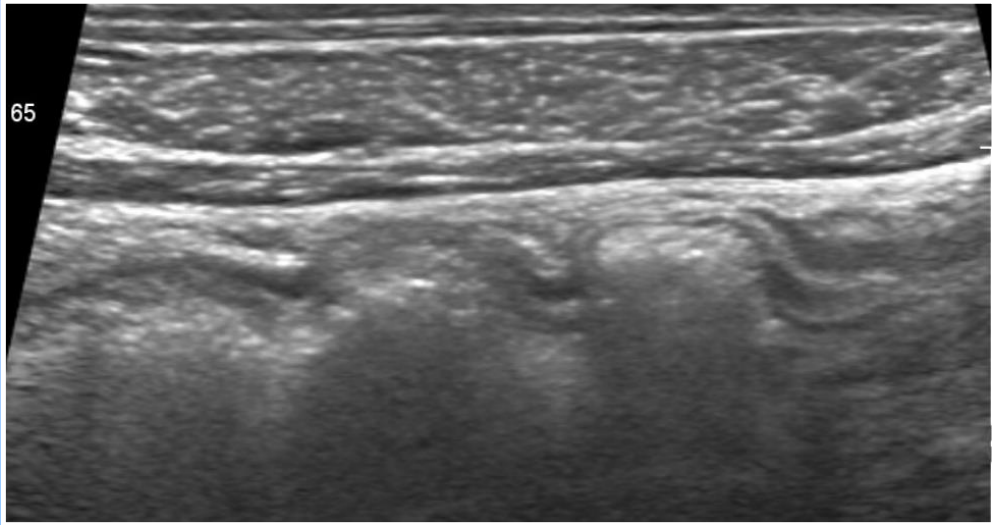
# Le colon normal





Colon

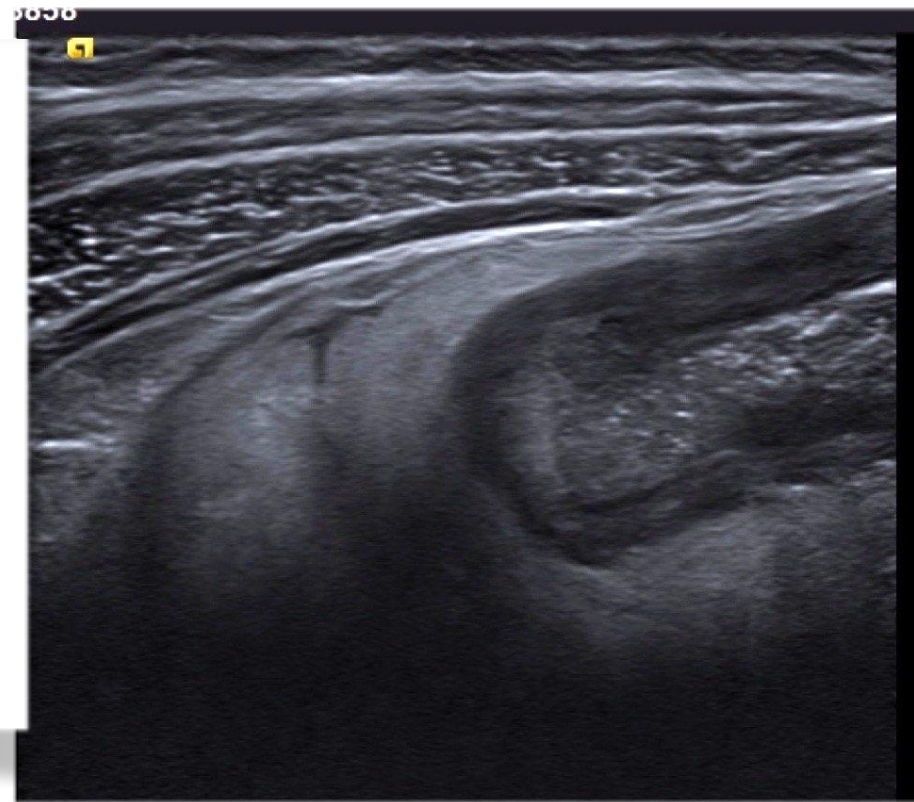
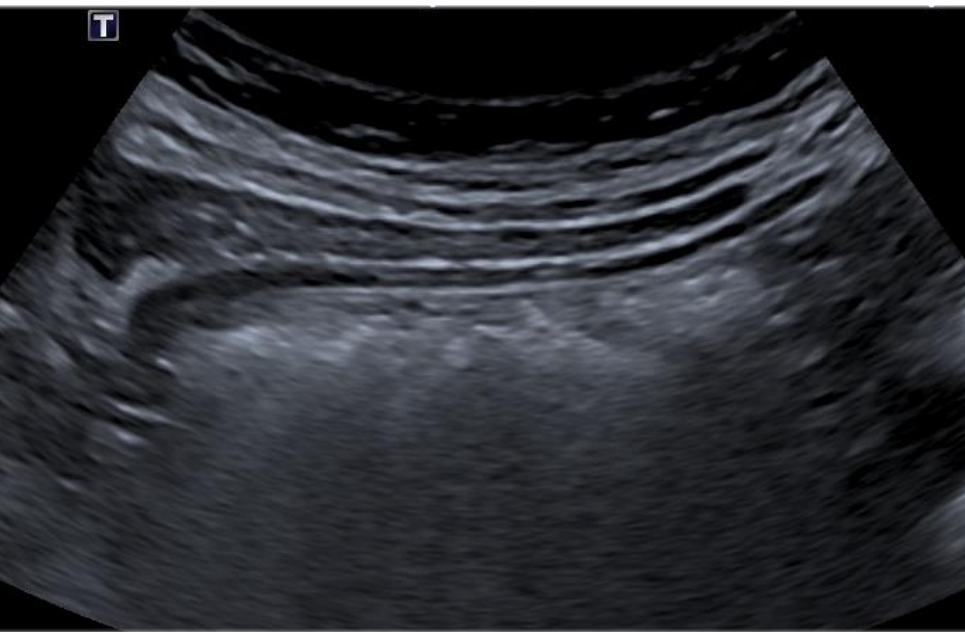
Epaisseur < 5 mm



Les haustrations

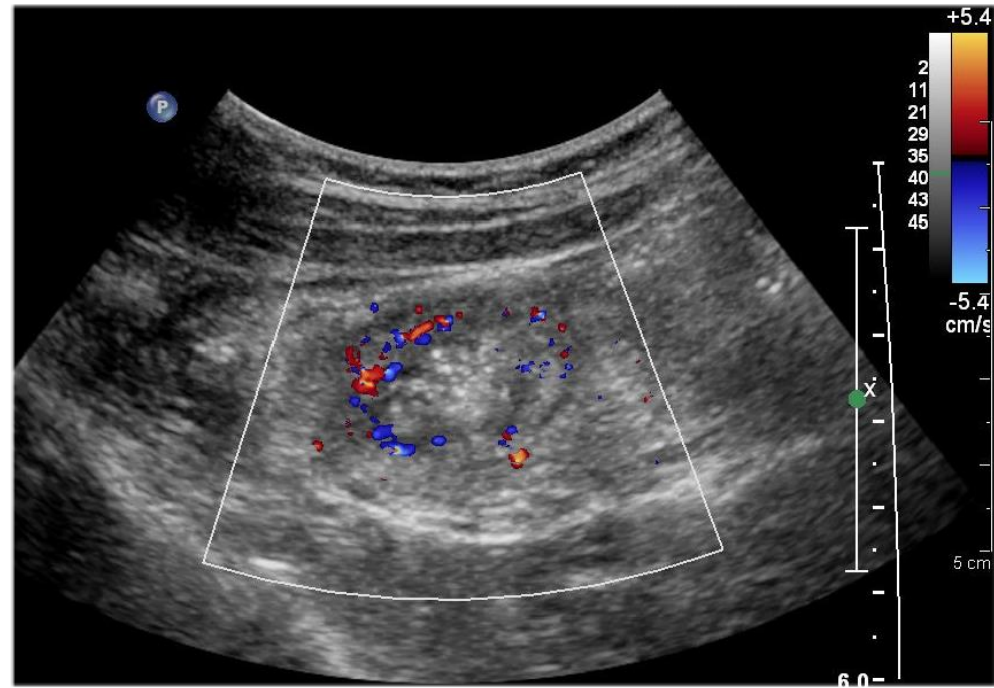
Environnement :

graisse péritonéale : **fil d'Ariane ++**



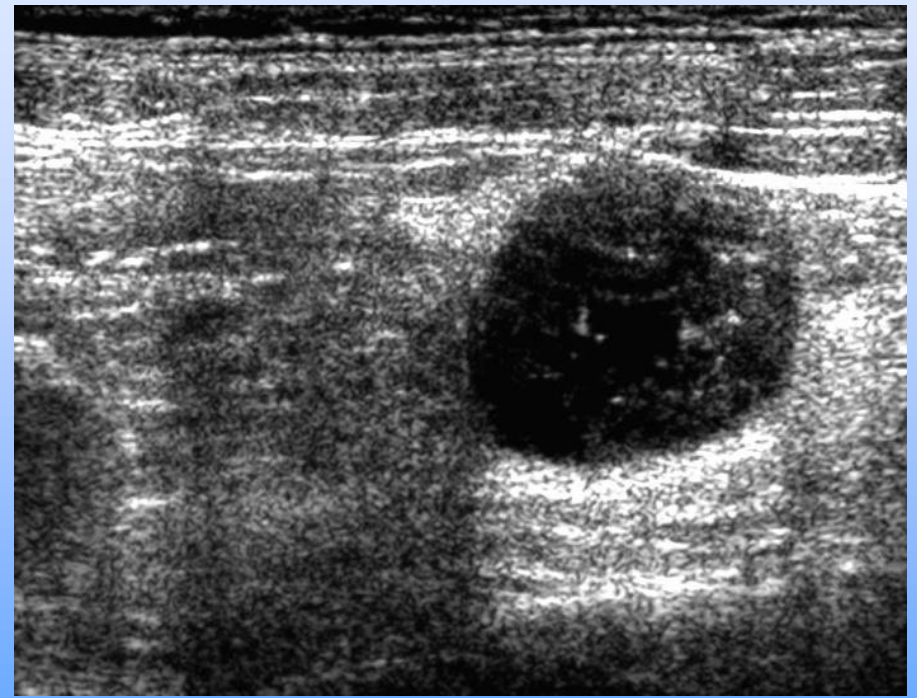
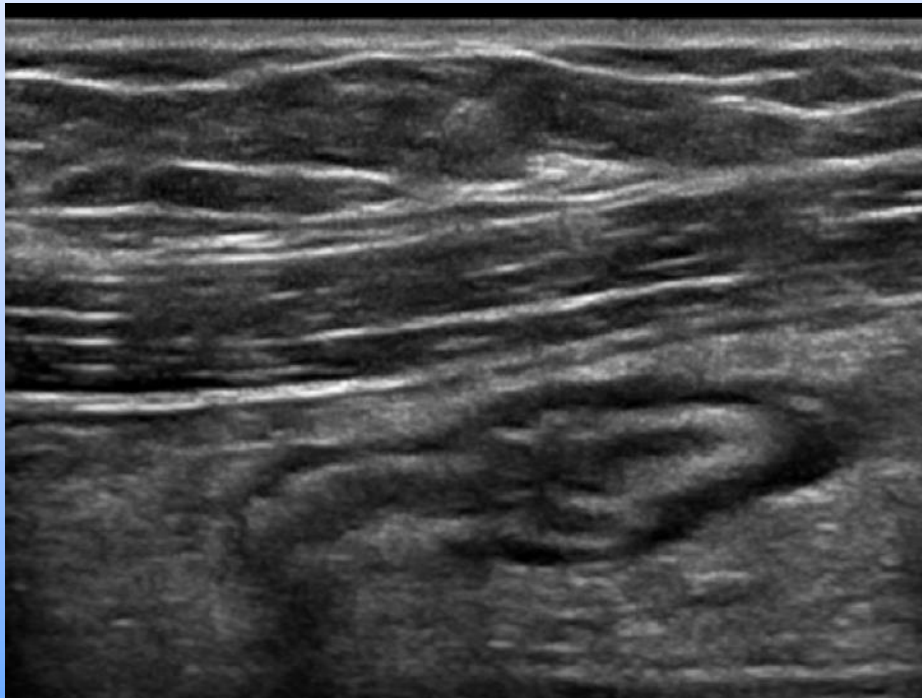


# Colon

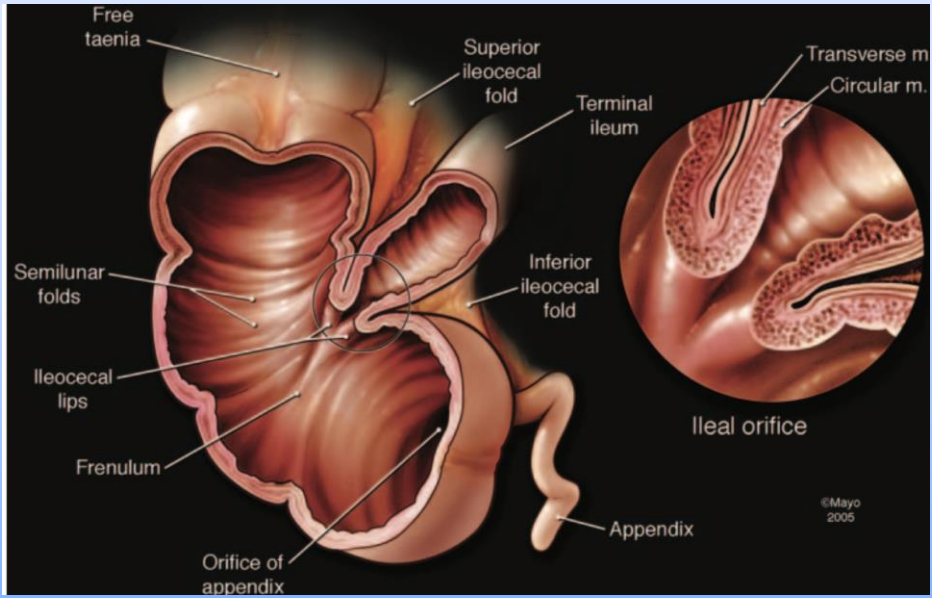
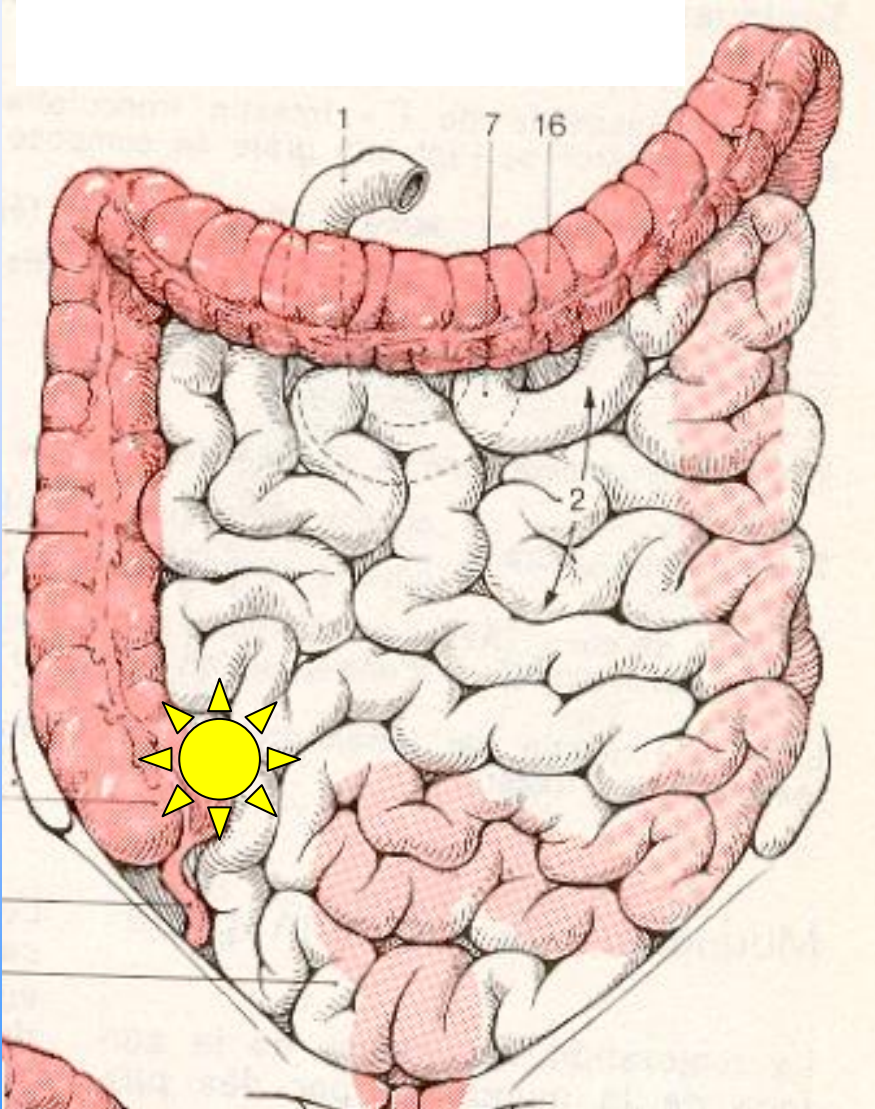


Epaisseur normale < 5 mm

## Stratification

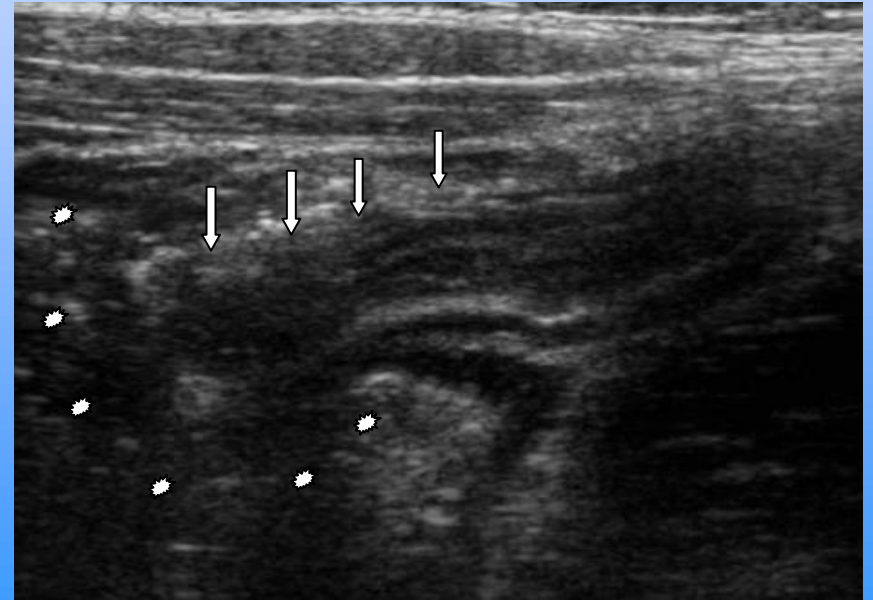
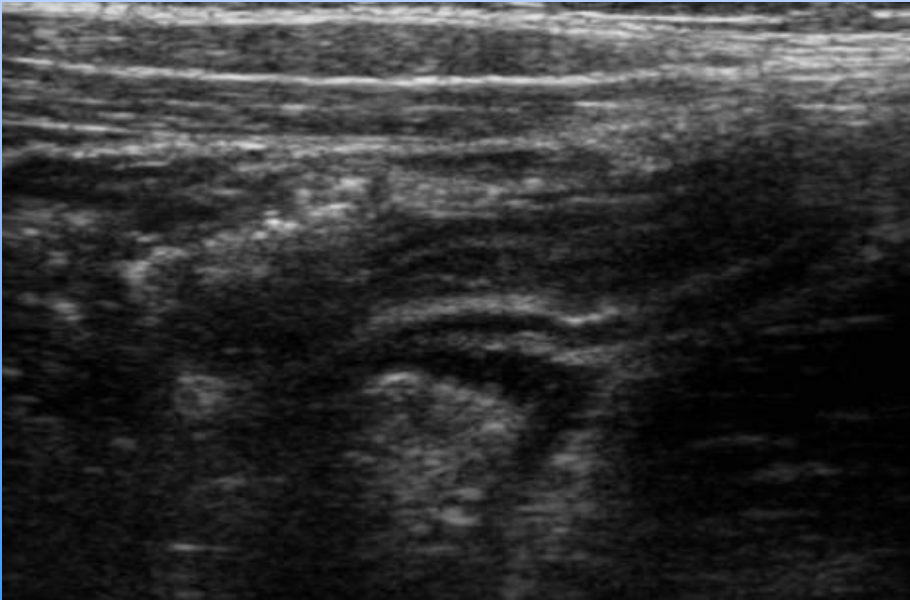
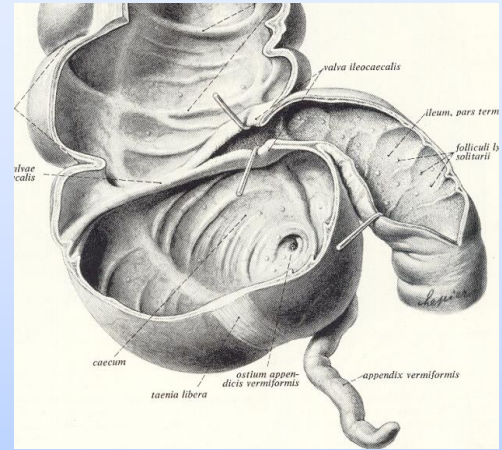
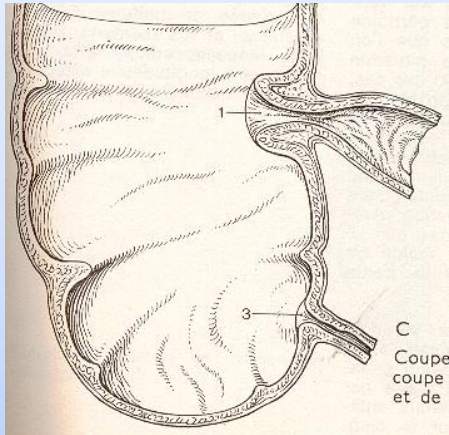


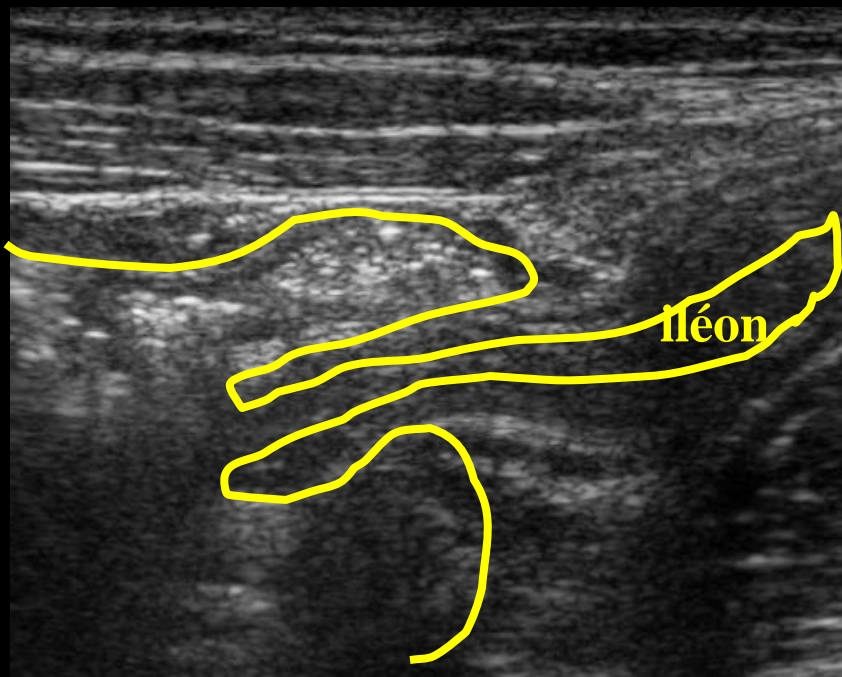
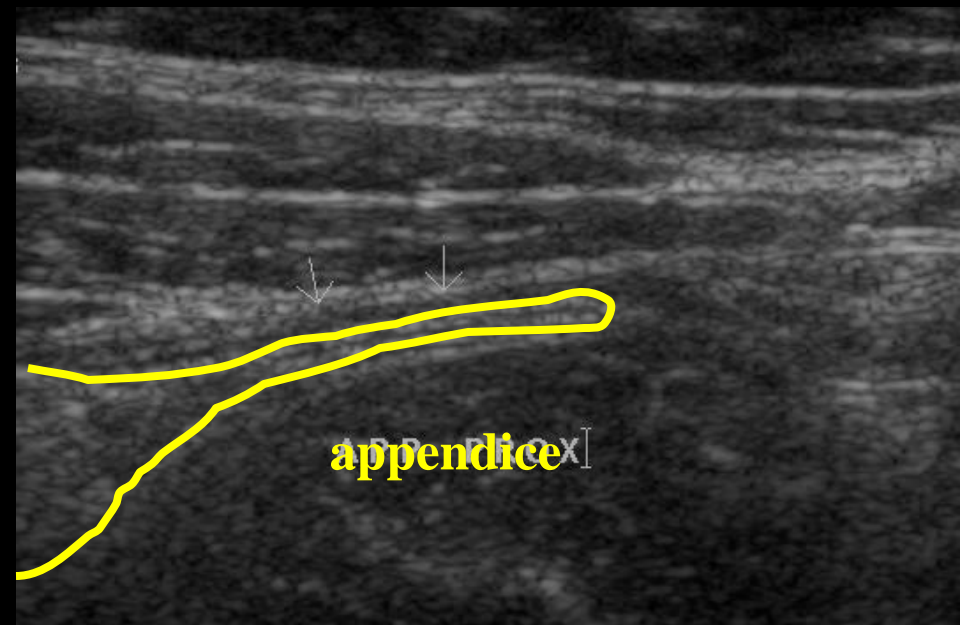
# CARREFOUR ILEO COEAL



*Alvin C. Silva, MD • Sean D. Beaty, MD • Amy K. Hara, MD • Joel G. Fletcher, MD • Jeff L. Fidler, MD • Christine O. Menias, MD • C. Daniel Johnson, MD*

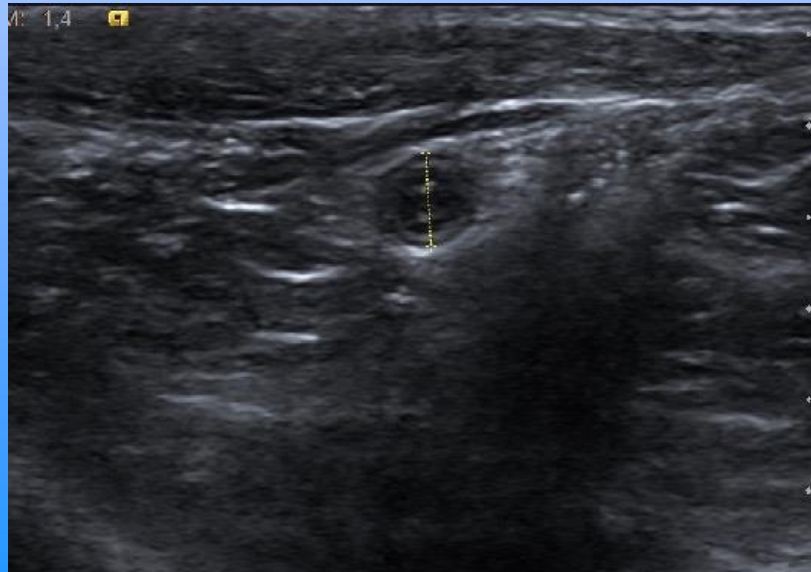
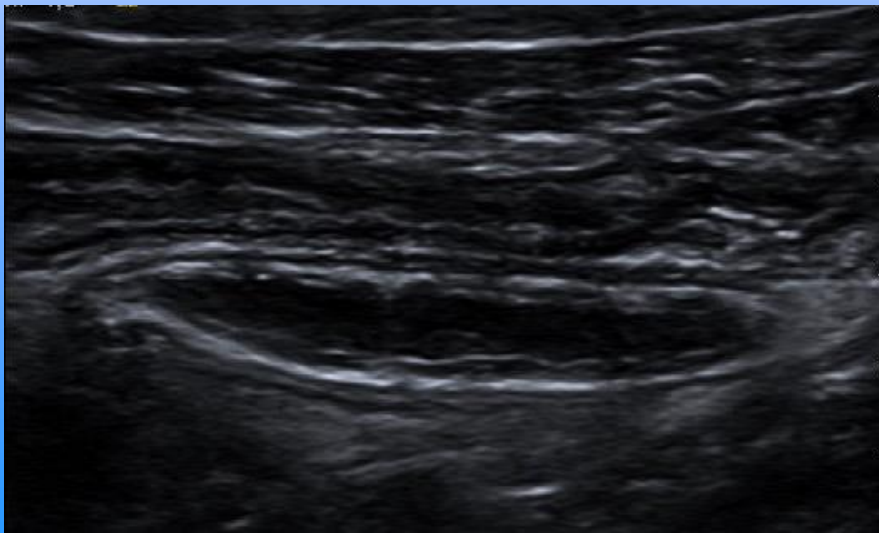
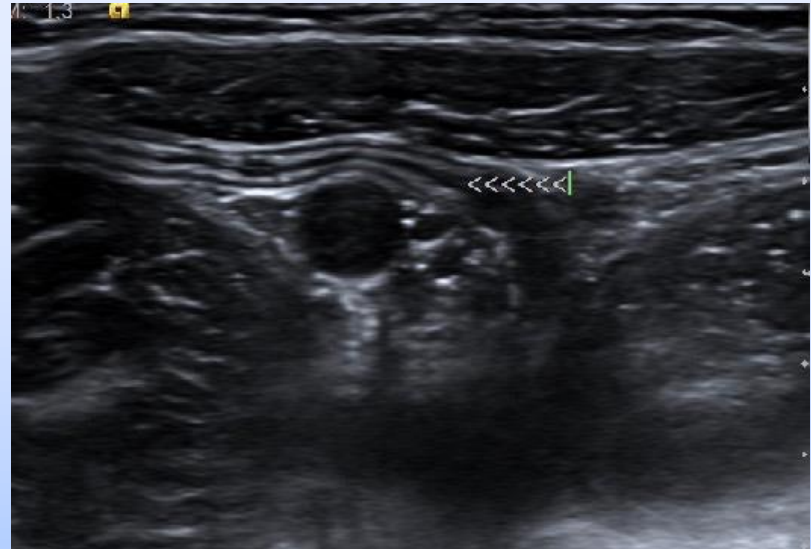
**RadioGraphics 2007; 27:1039-1054 •**

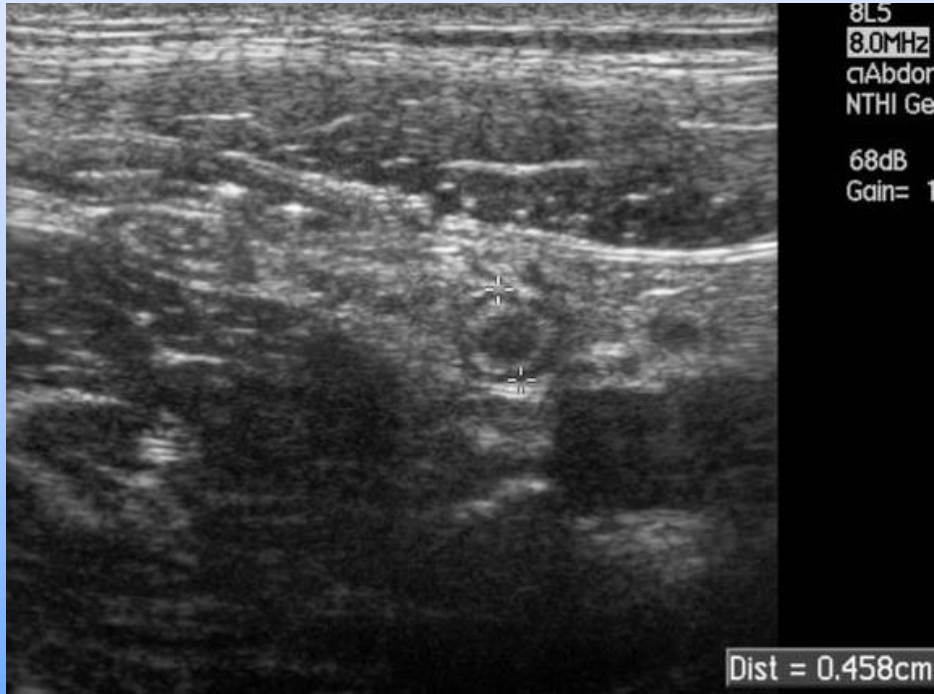




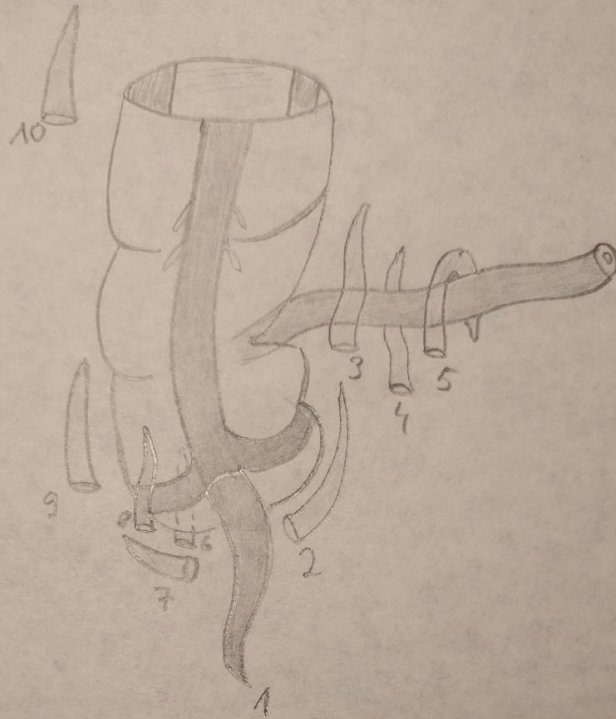
appendice normal

repérer la jonction iléo coecale  
tubulaire , borgne  
paroi fine  
diamètre < 6 mm  
compressible  
contenu parfois liquidien ,  
stercolithe





APPENDICE NORMAL US ET CT



- 1: pelvienne
- 2: medio-caecale
- 3: pré-iléale
- 4: rétro-iléale
- 5: péri-iléale

- 6a: rétro-caecale
- 7: infra-caecale
- 8: pré-caecale
- 9: latéro-caecale
- 10: infra-hépatique

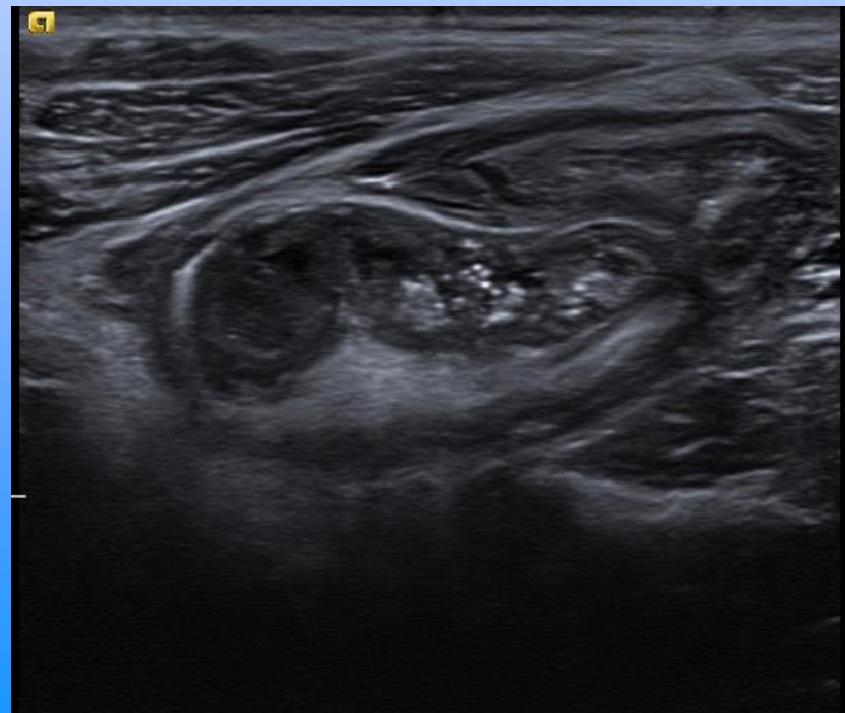
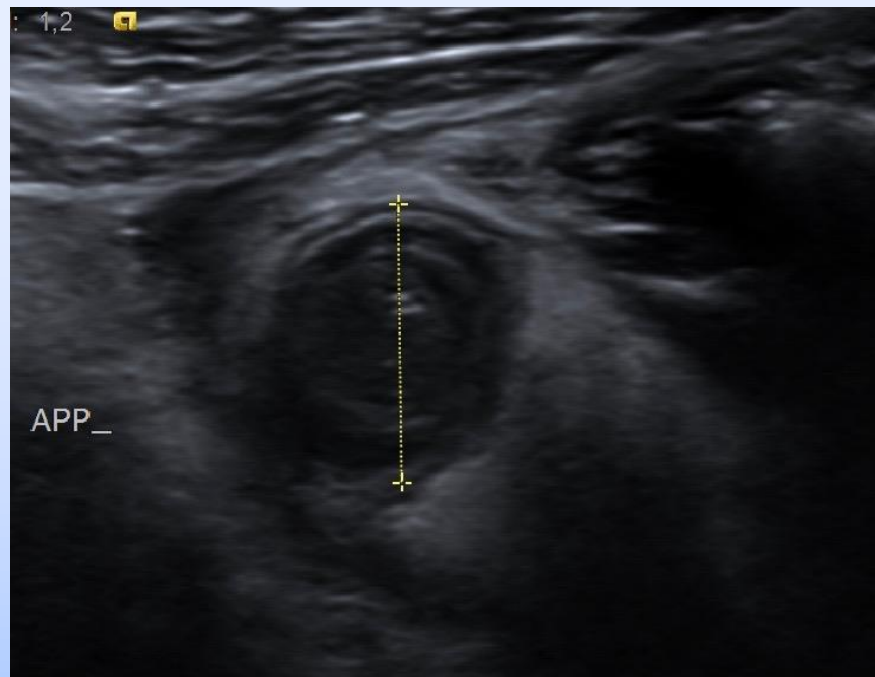
6b: rétrocolique  
(au dessus de la  
valve iléocaecale.)

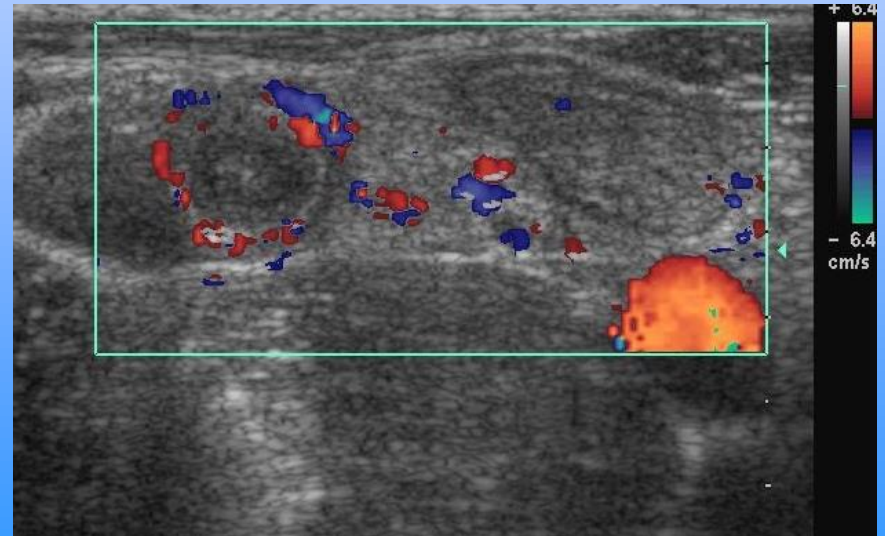
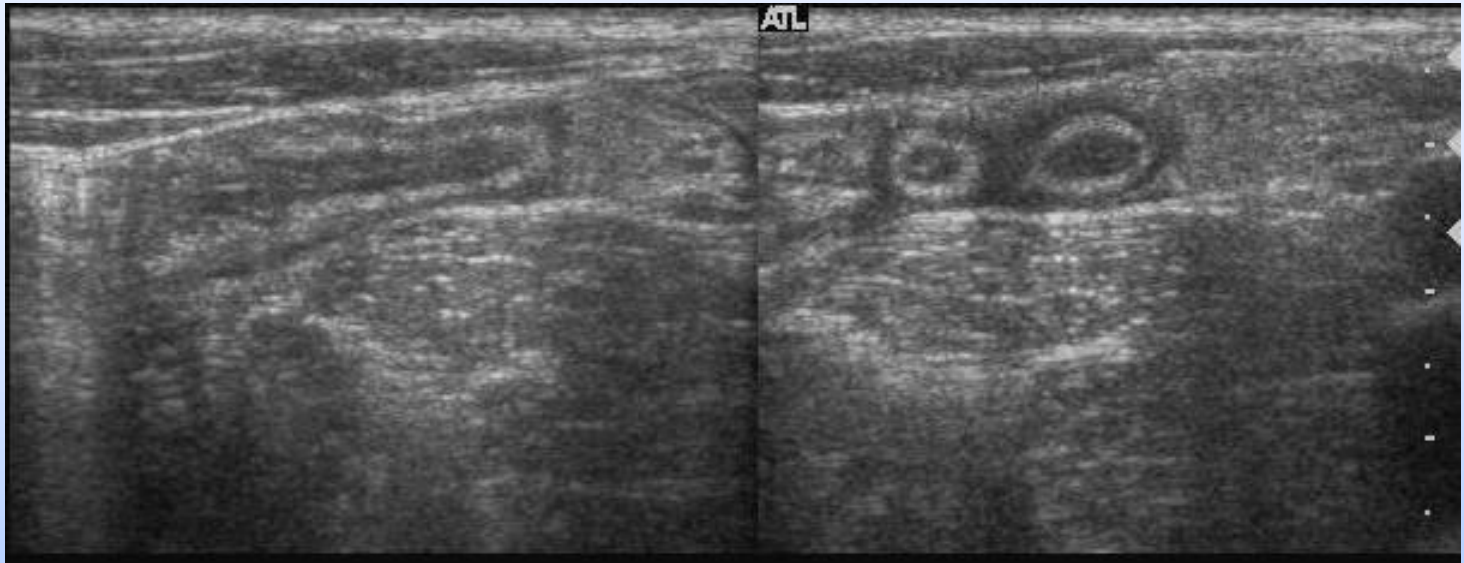


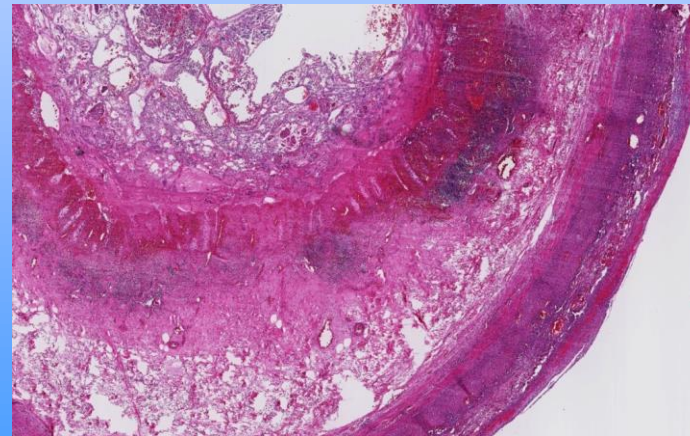
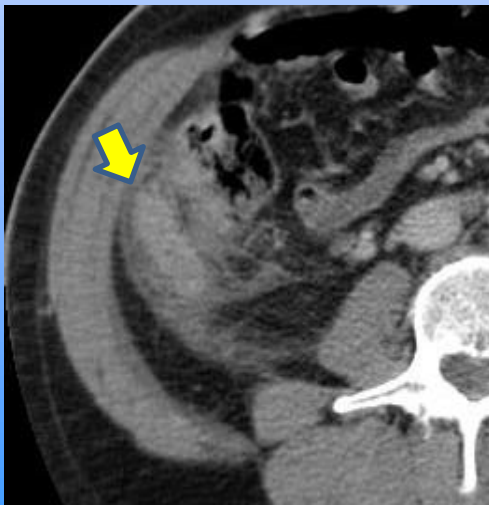
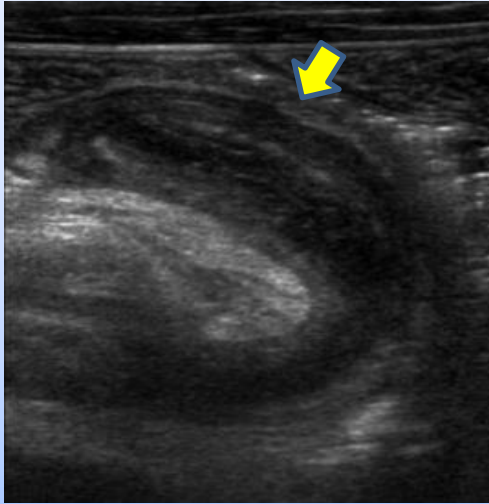


## appendicite

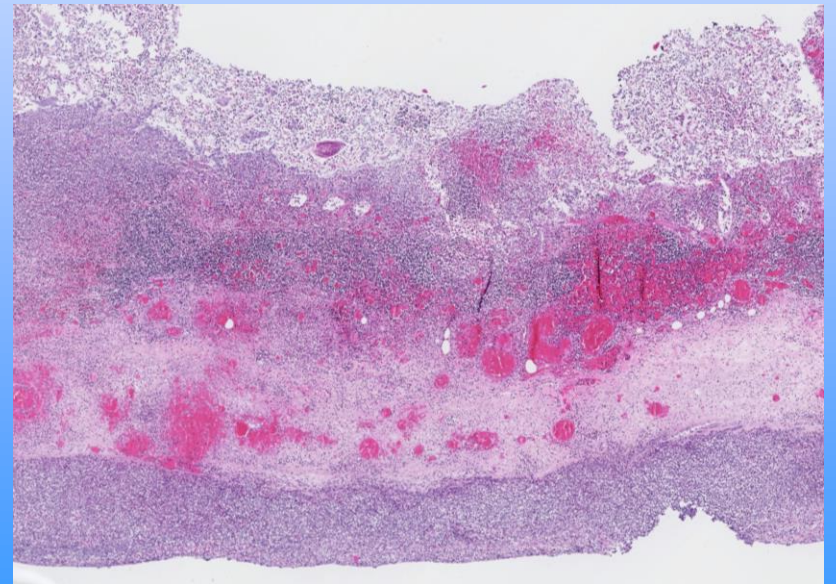
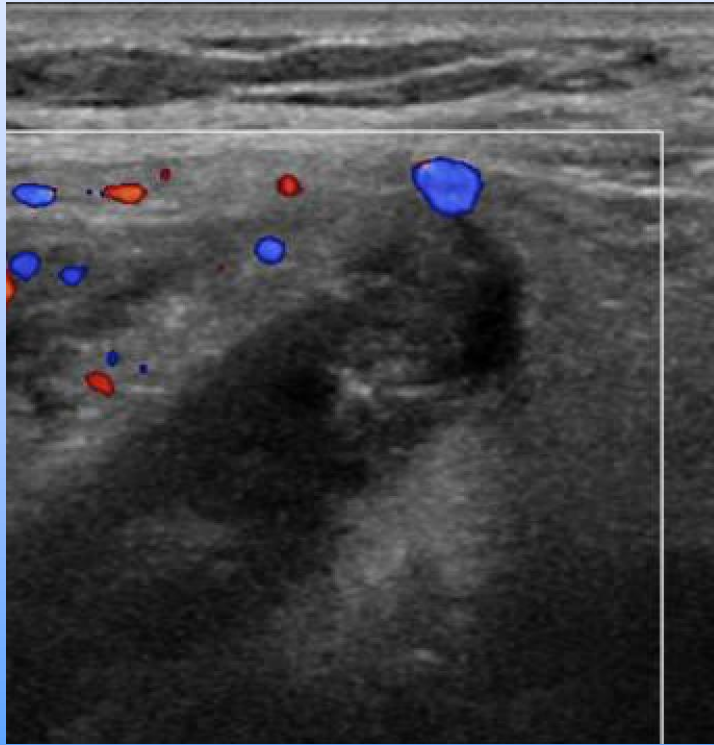
épaississement pariétal  
**augmentation de calibre  $\geq 6\text{mm}$**   
**incompressible**  
épanchement  
adénopathies satellites  
infiltration de la graisse



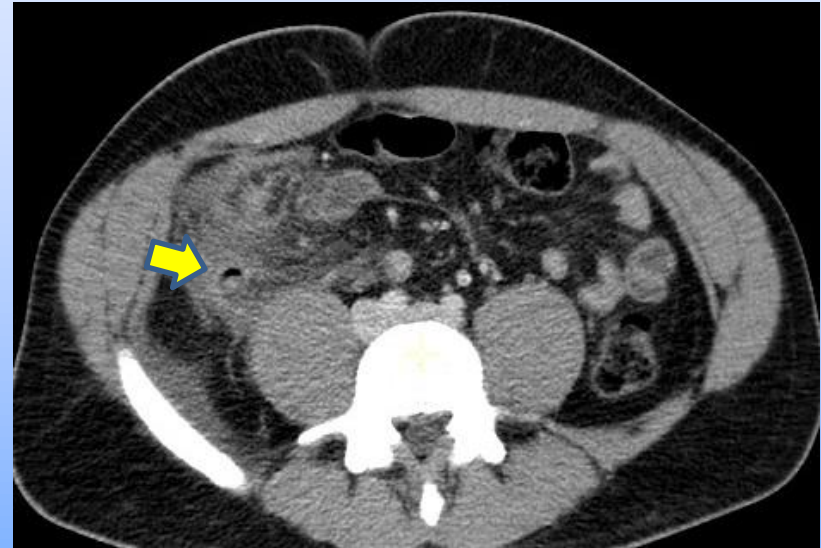
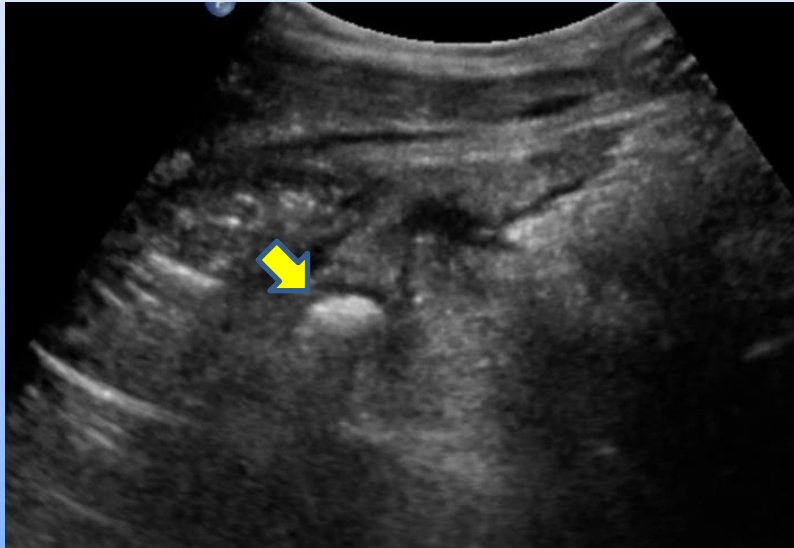




Appendicite aiguë :  
correspondance entre  
l'aspect échographique,  
le CT et l'histologie.  
L'appendice est épaissi,  
la graisse péricolique est  
infiltrée.



L'appendice est enflammé, les parois ne sont plus bien stratifiées et l'appendice apparaît nécrotique.

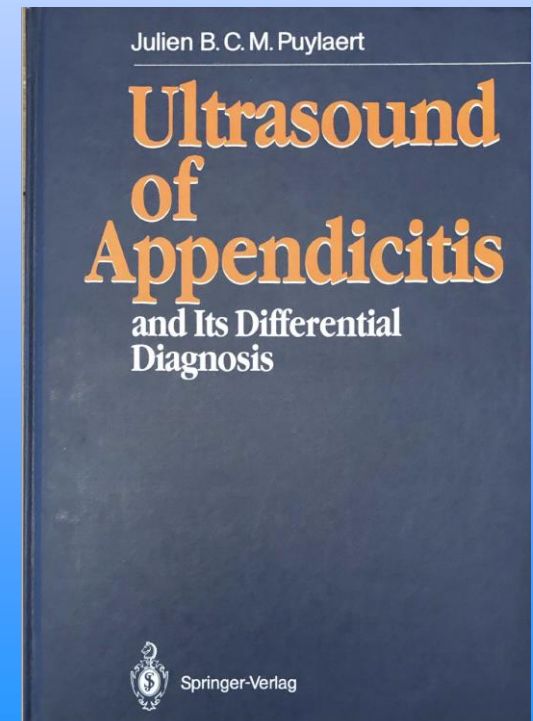
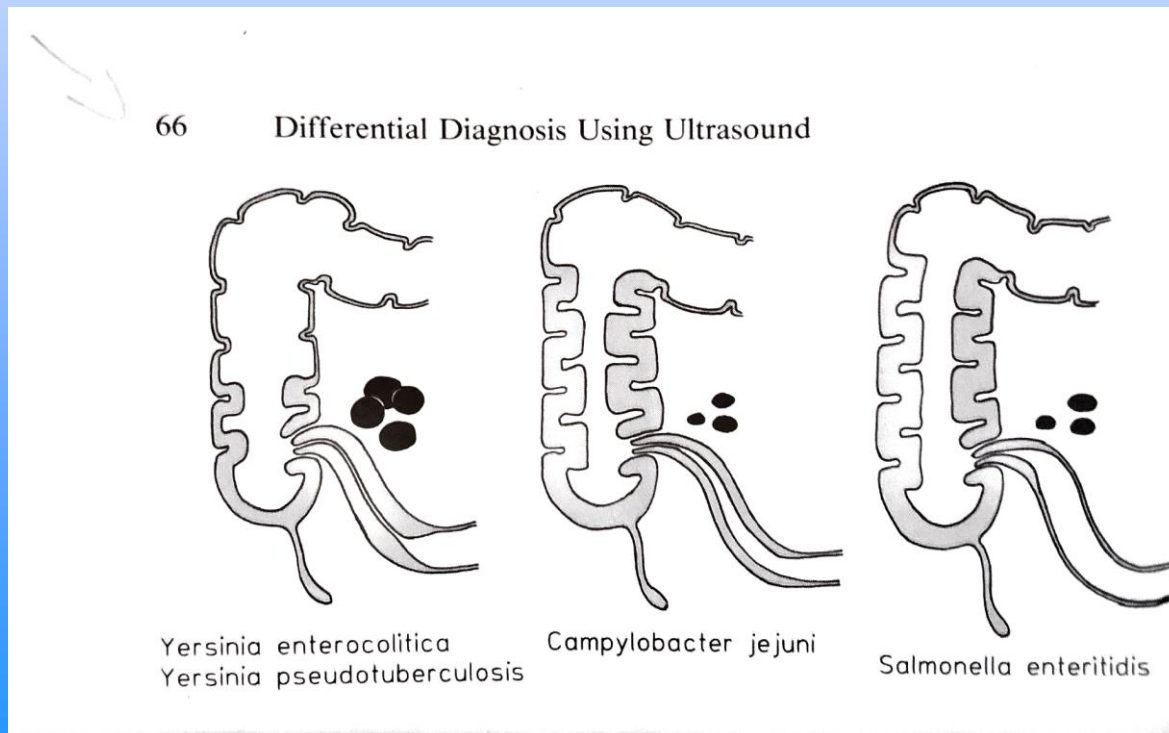


Appendicite difficile en US : on ne voit pas l'appendice avec certitude (peut-être en regard de la flèche) mais on identifie clairement la graisse péridigestive infiltrée.

Au CT, on retrouve un segment appendiculaire (flèche) et une importante infiltration de la graisse péricæcale .

# Iléo-colites droites

- infectieuses (yersinia, salmonelle , campylobacter )
- Colite neutropénique
- MICI / Crohn

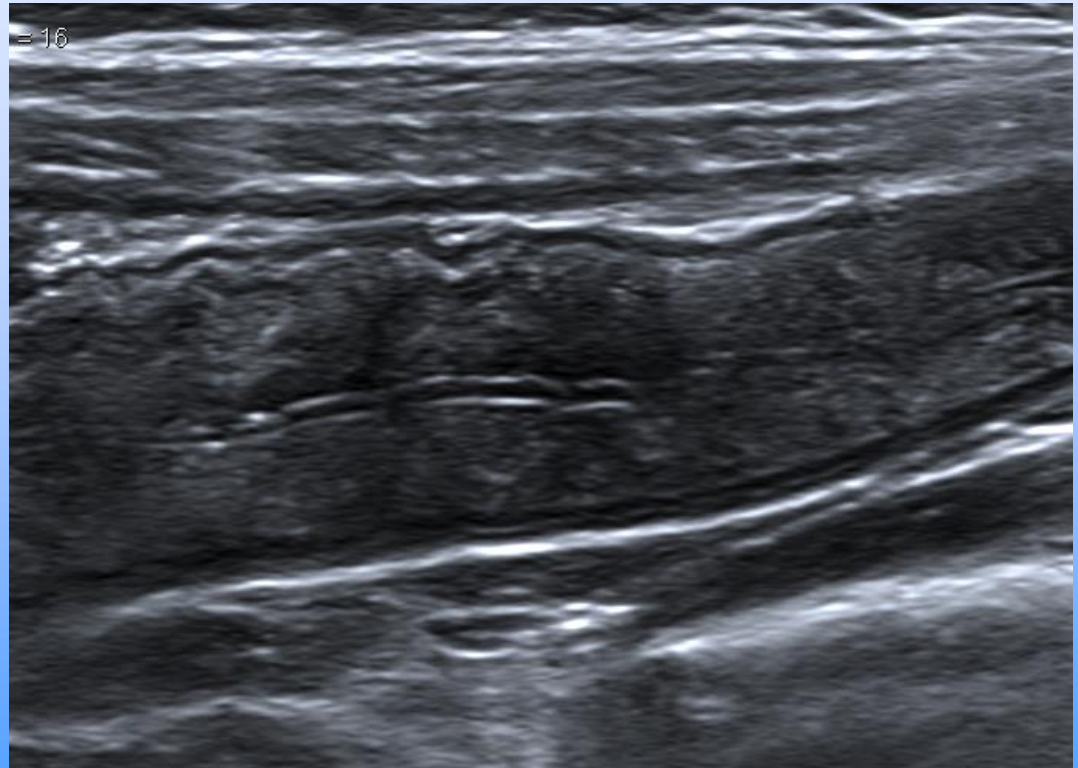


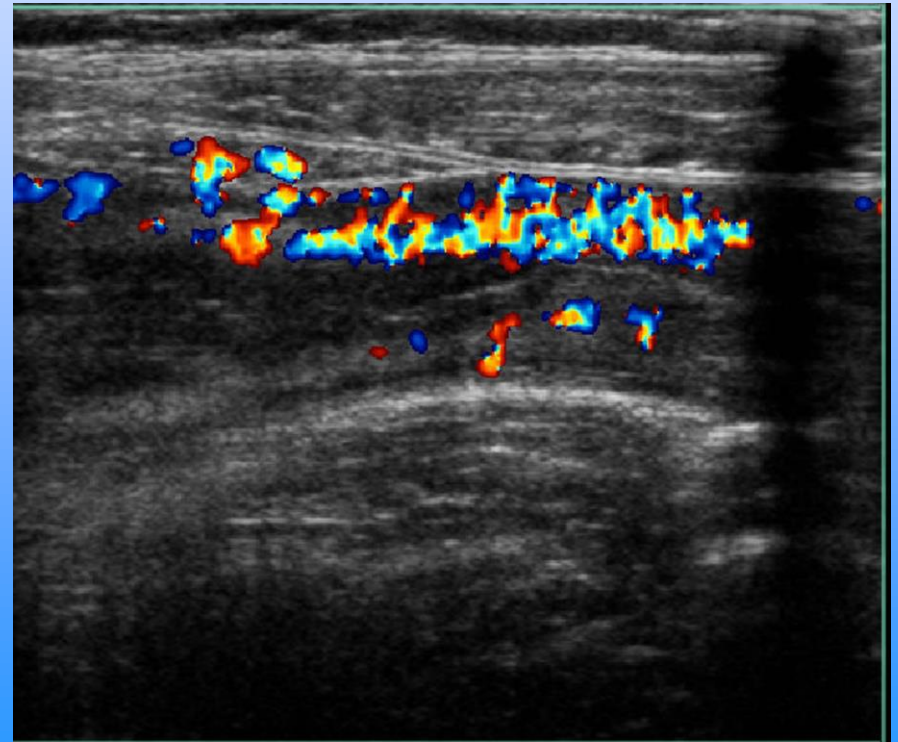
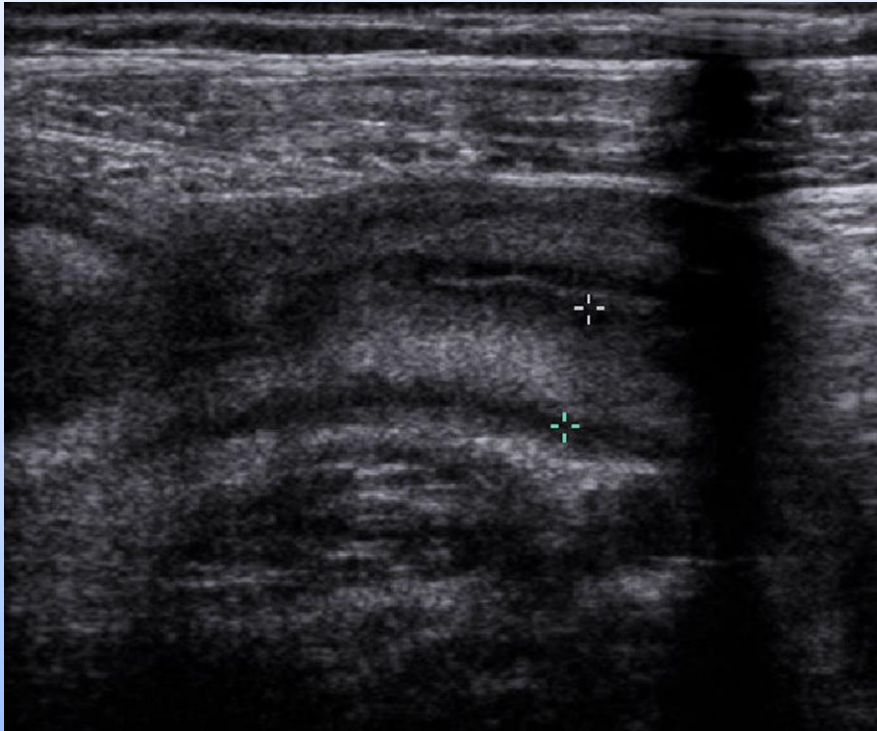
Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement

=> ILÉITE TERMINALE

- simple





***Iléite terminale***

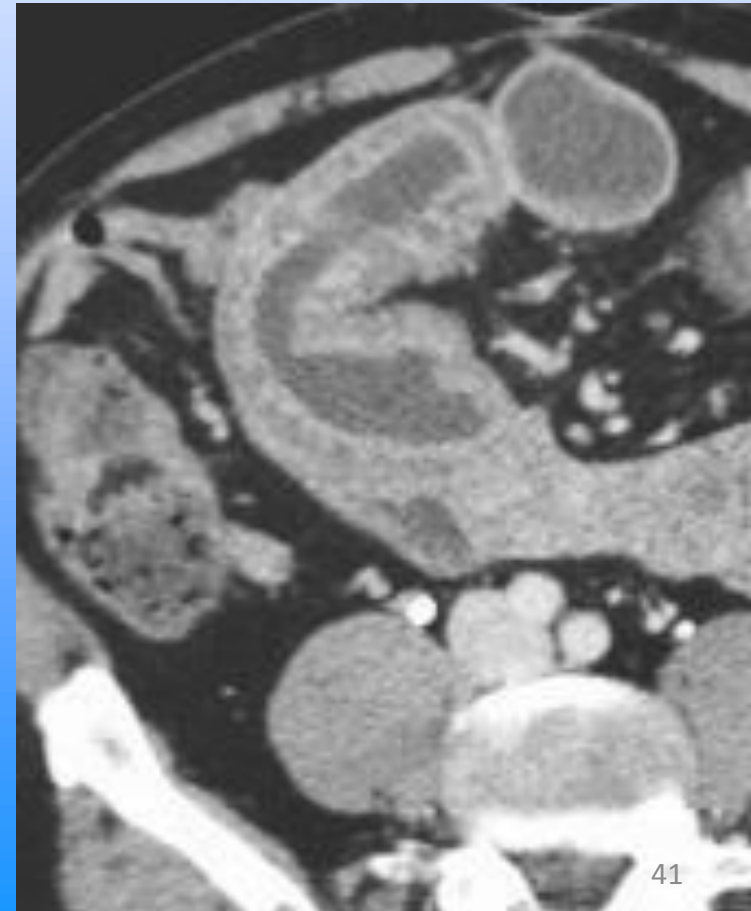
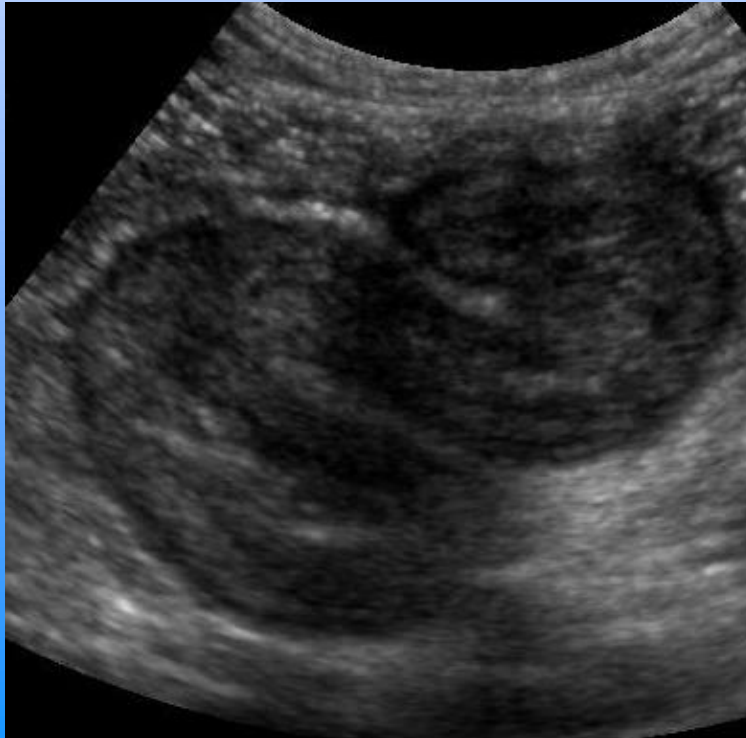


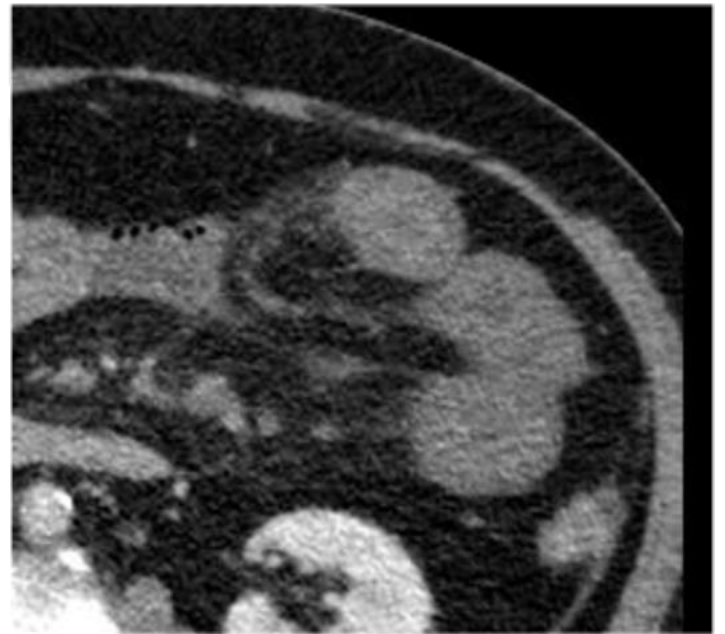
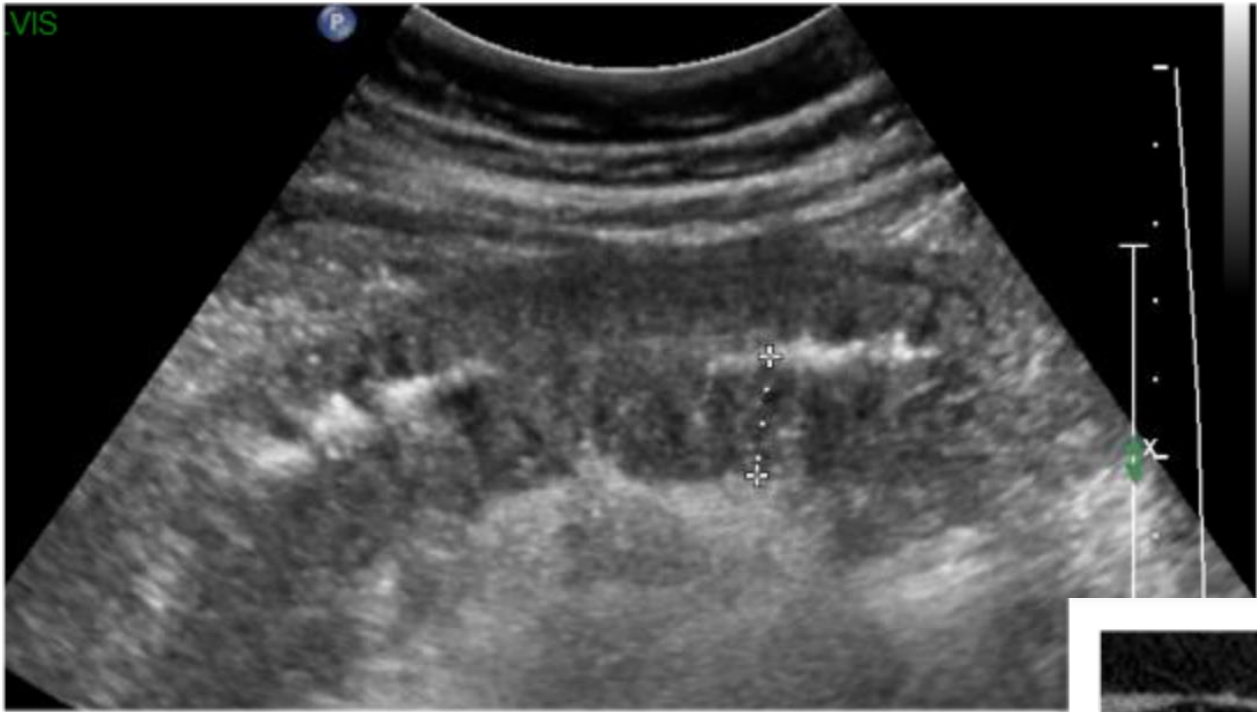
Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement

=> ILÉITE - entérite

- Ischémique



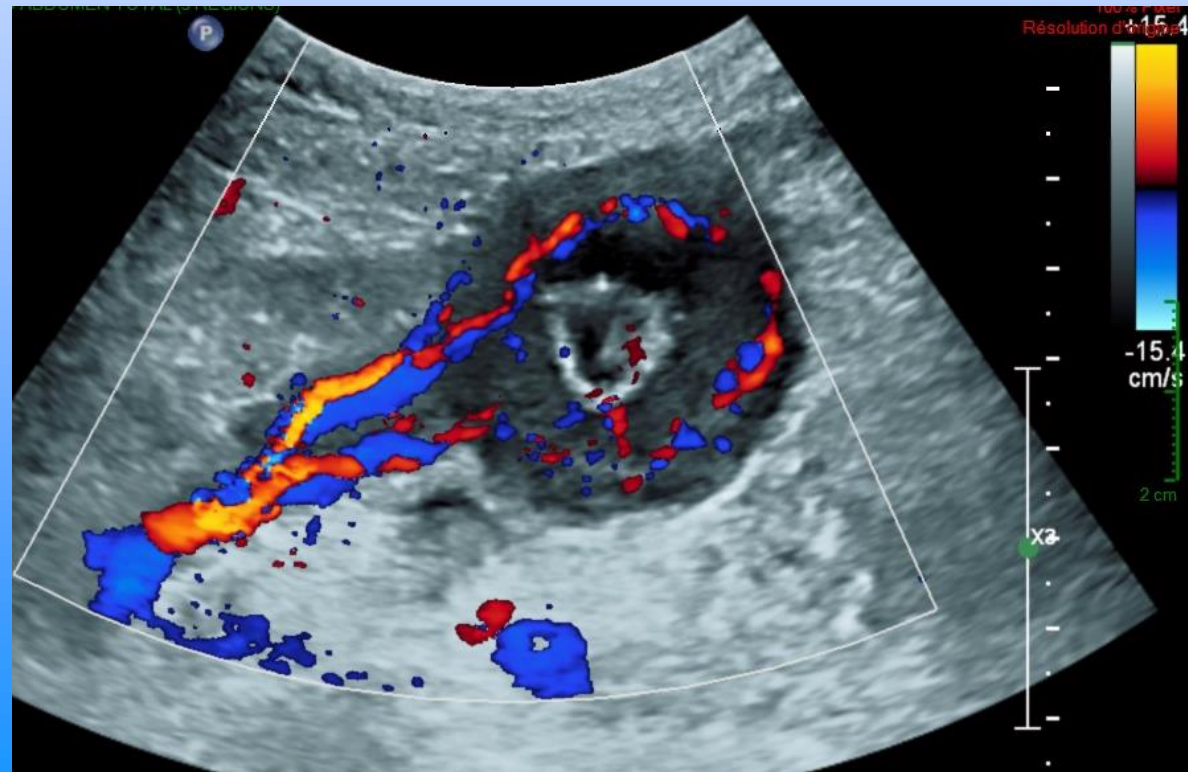
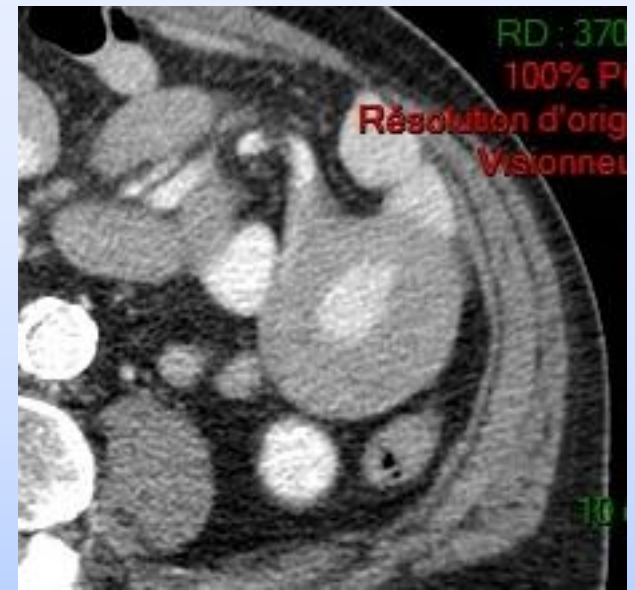


## Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement

=> ( ILÉITE)- entérite

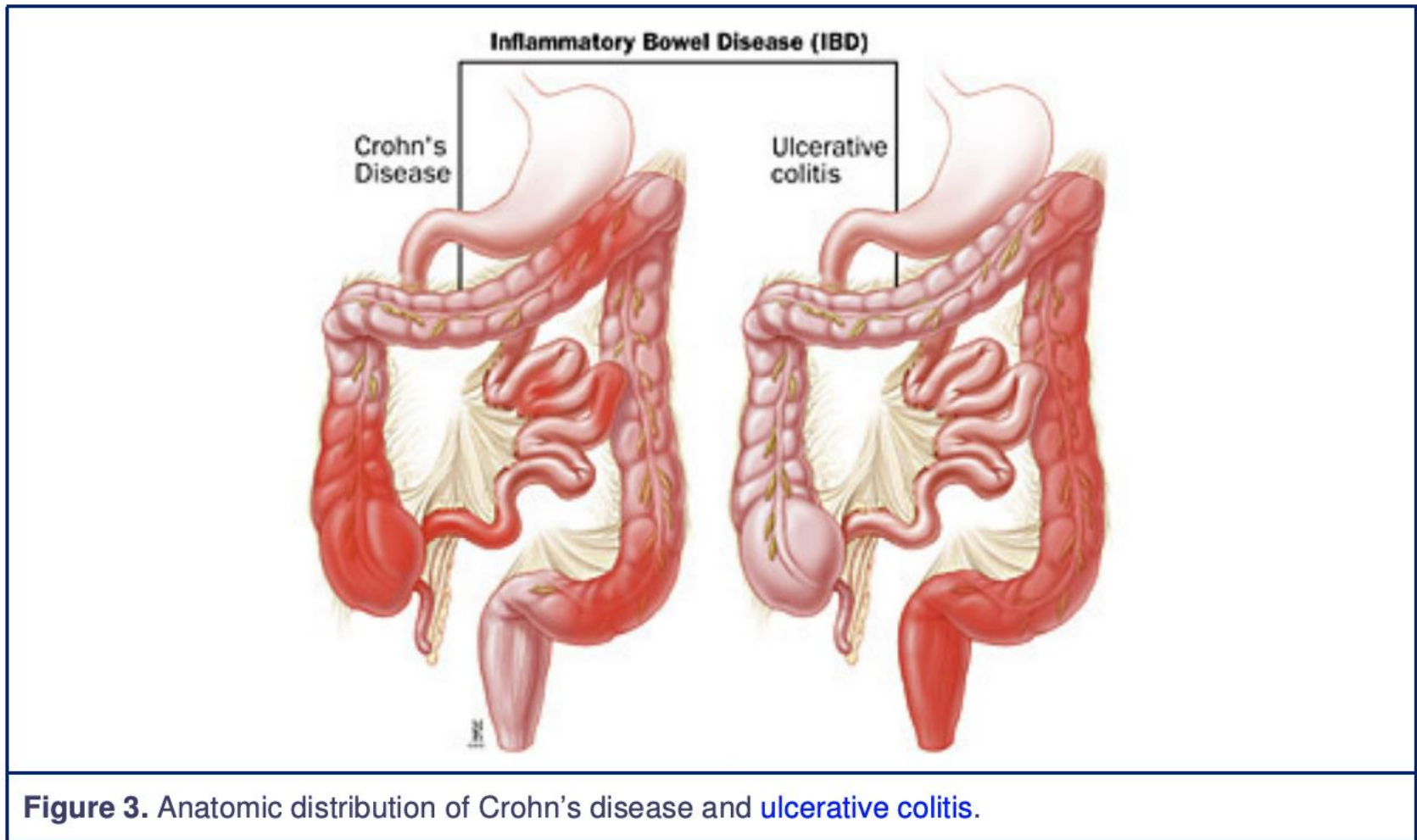
- Néoplasique



Crohn

MICI

RCUH

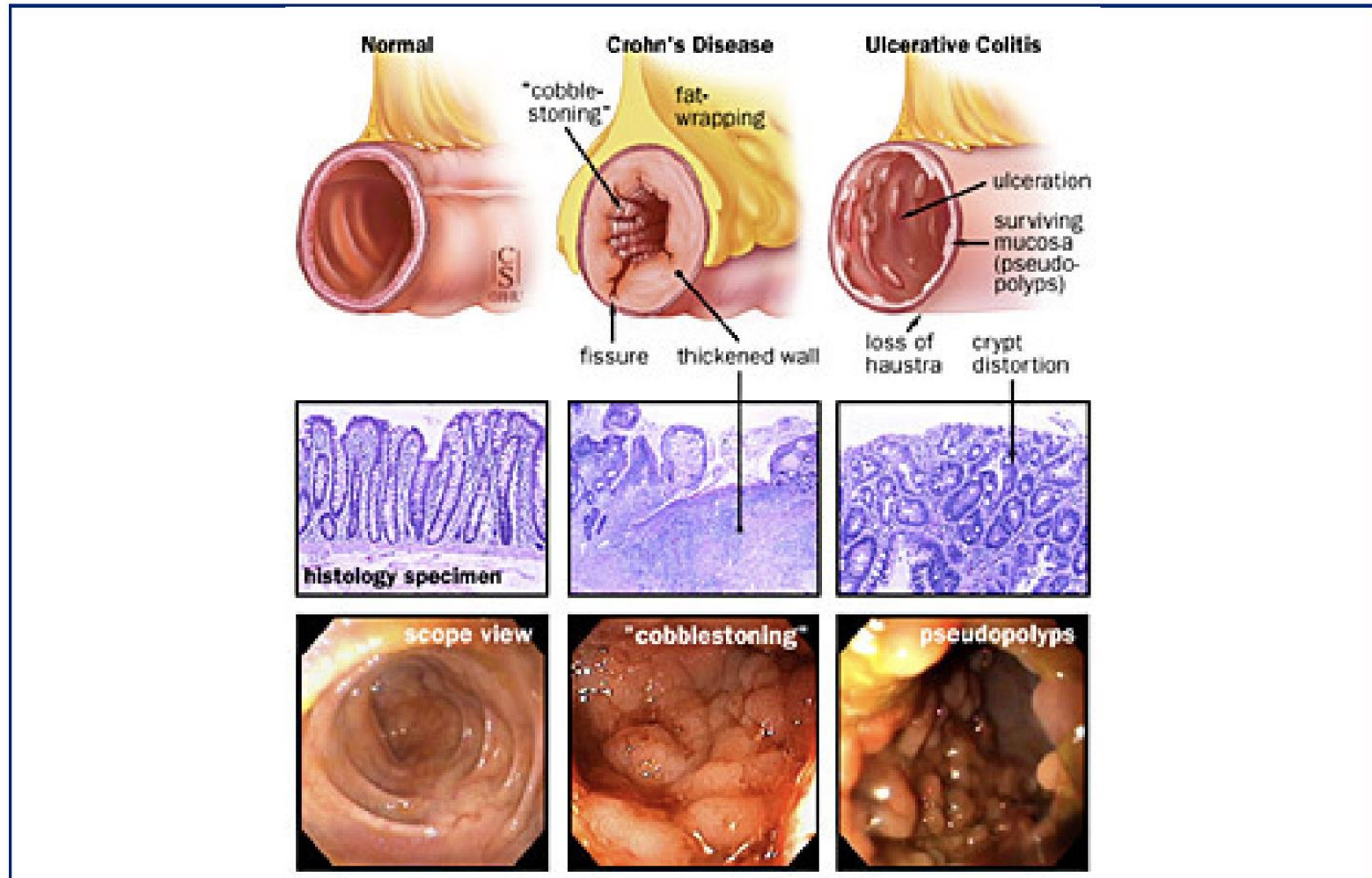


[https://www.hopkinsmedicine.org/gastroenterology\\_hepatology/\\_pdfs/small\\_large\\_intestine/crohns\\_disease.pdf](https://www.hopkinsmedicine.org/gastroenterology_hepatology/_pdfs/small_large_intestine/crohns_disease.pdf)

Crohn

MIC

RCUH



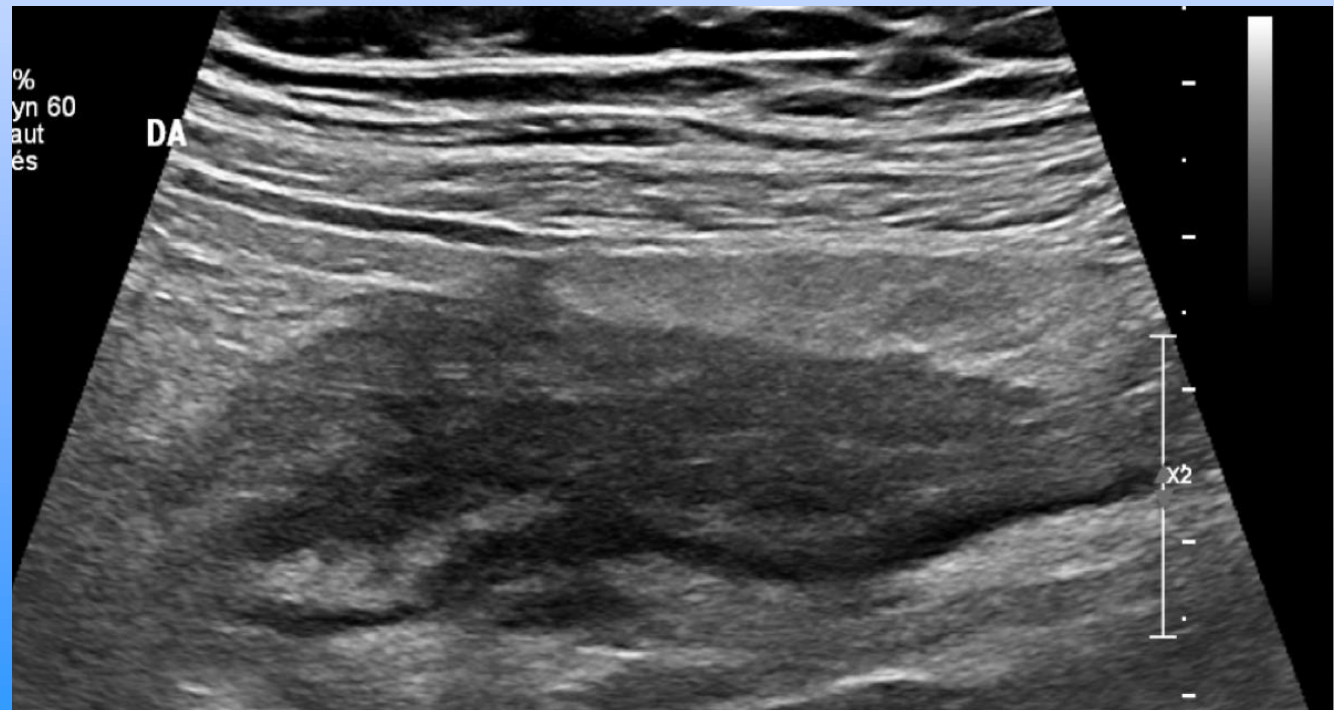
[https://www.hopkinsmedicine.org/gastroenterology\\_hepatology/\\_pdfs/small\\_large\\_intestine/crohns\\_disease.pdf](https://www.hopkinsmedicine.org/gastroenterology_hepatology/_pdfs/small_large_intestine/crohns_disease.pdf)

Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement

=> ILÉITE TERMINALE

- Inflammatoire

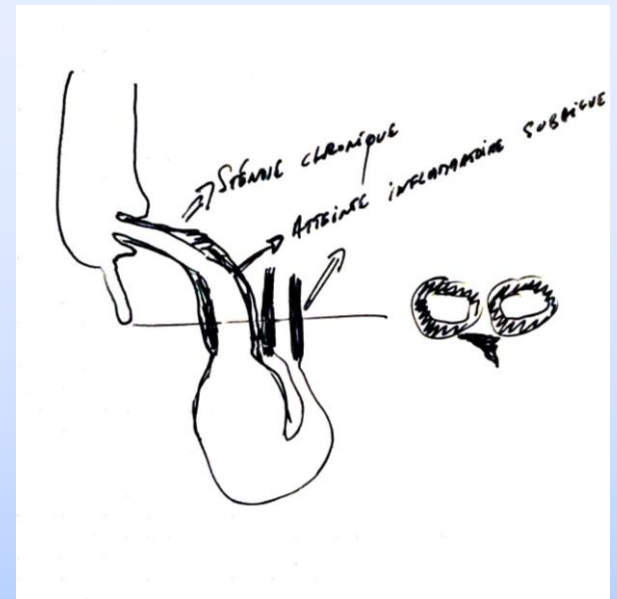


## Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement

=> ILÉITE TERMINALE

- Inflammatoire

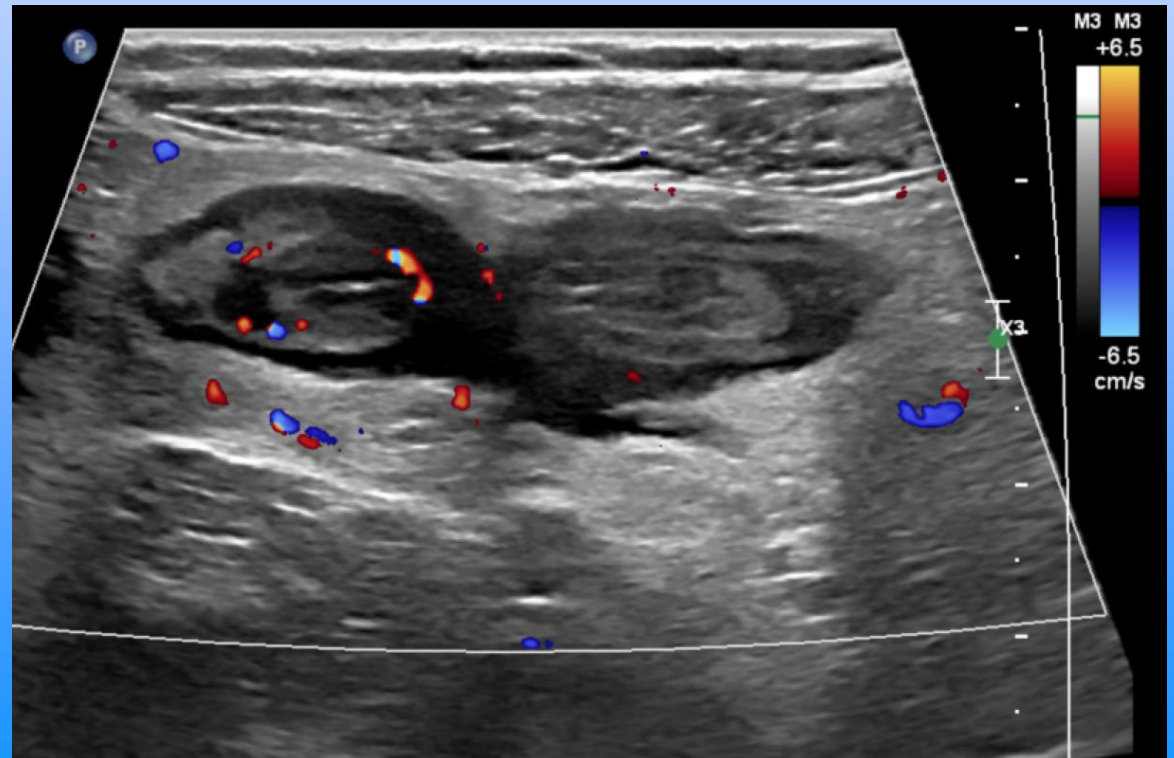
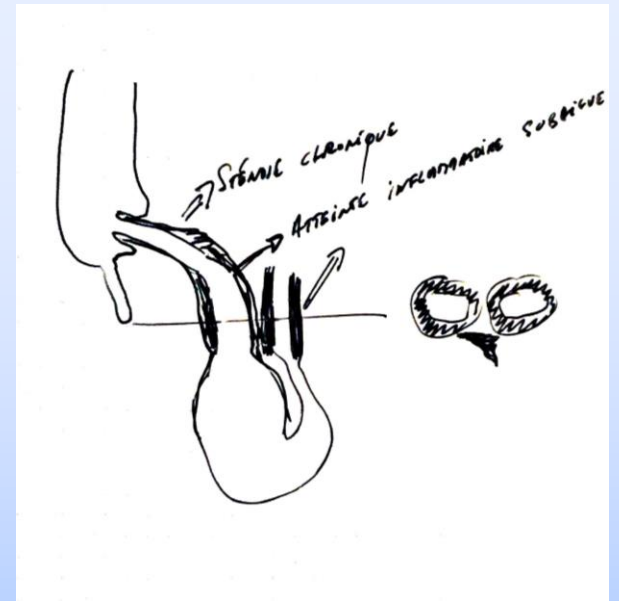


## Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement

=> ILÉITE TERMINALE

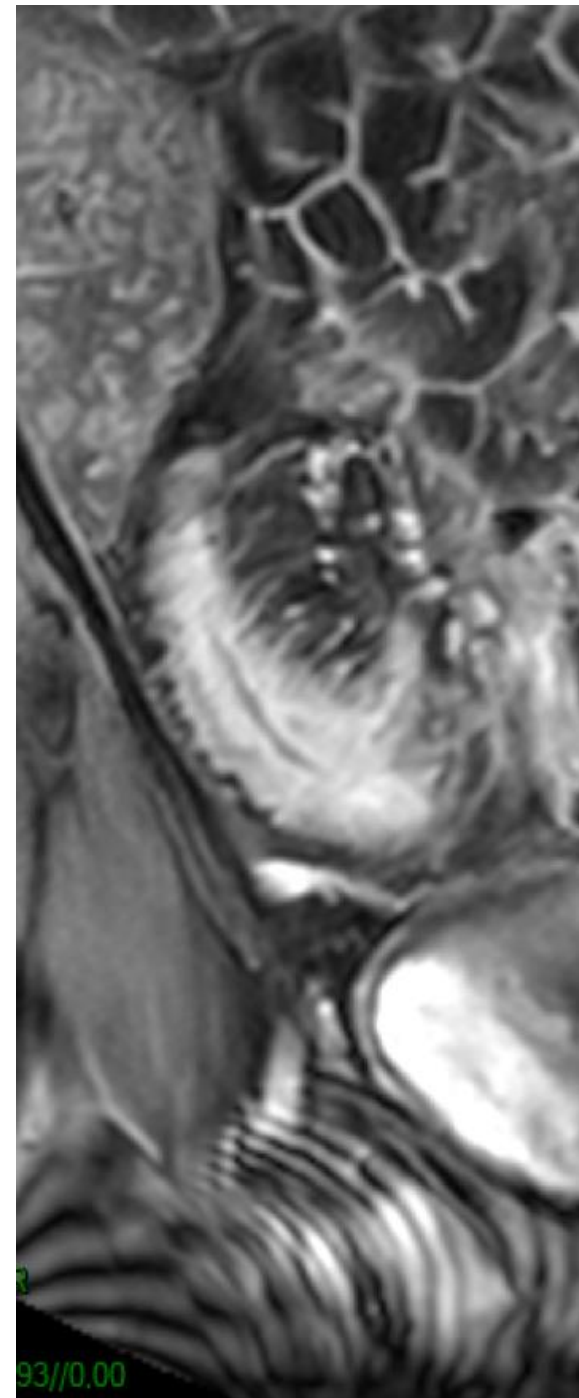
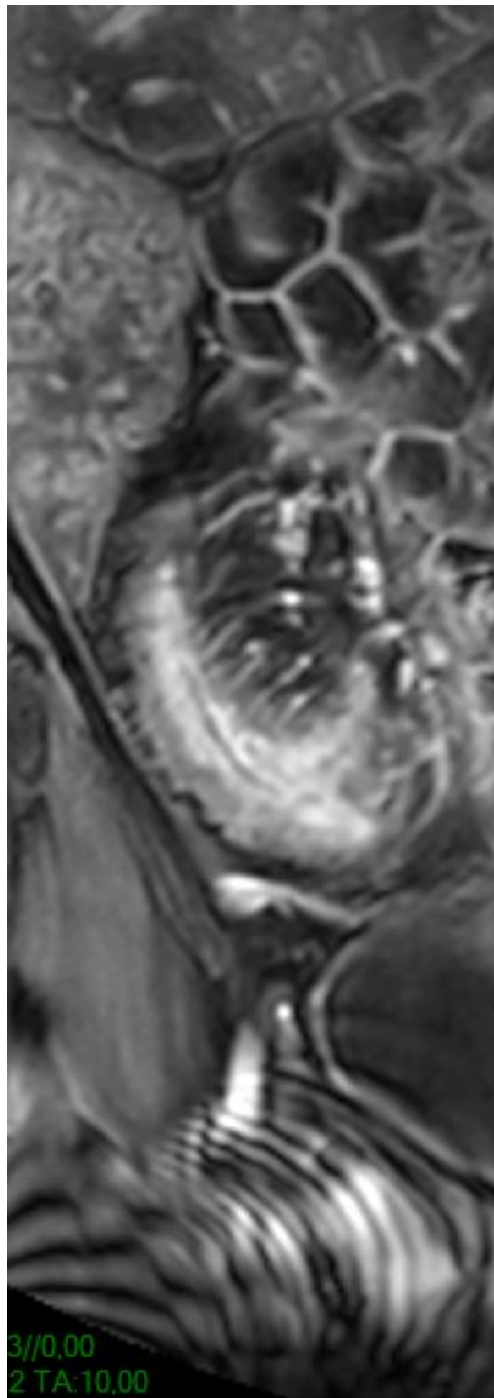
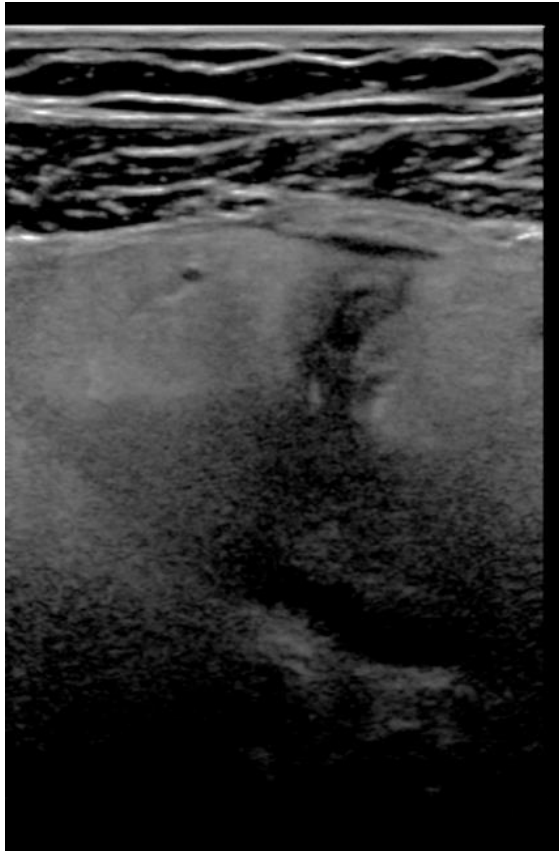
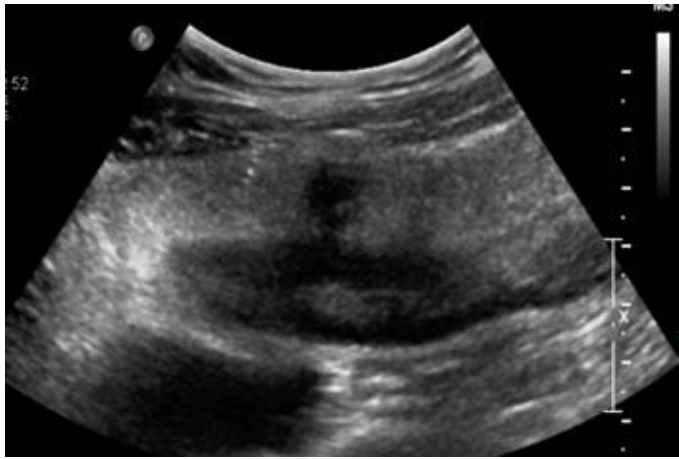
- Inflammatoire

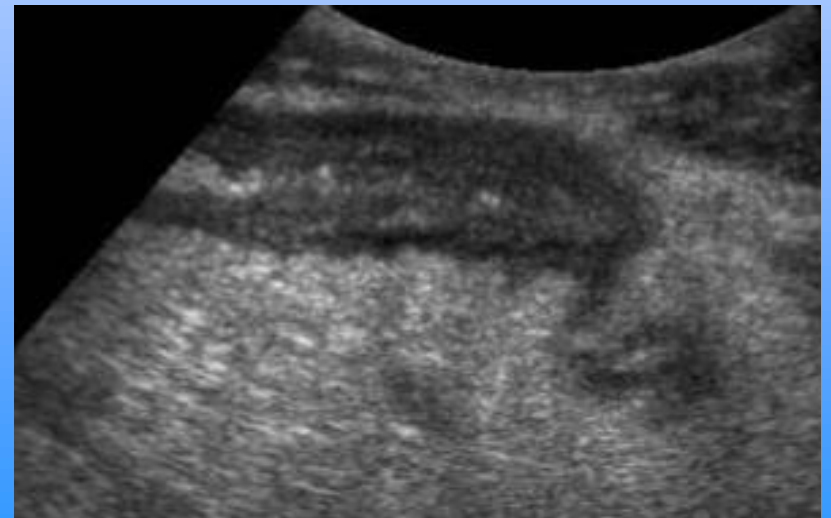
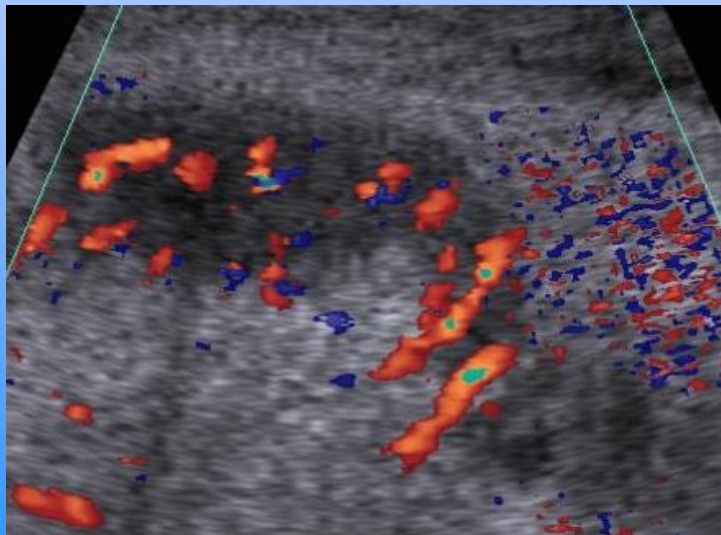
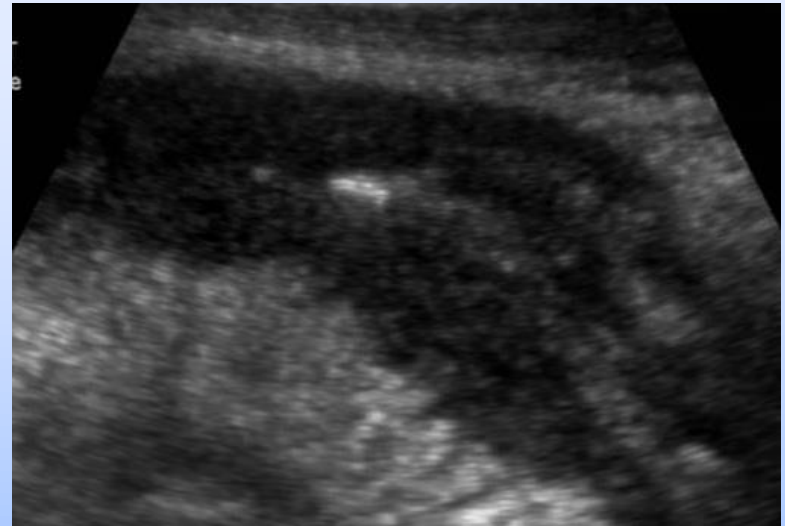


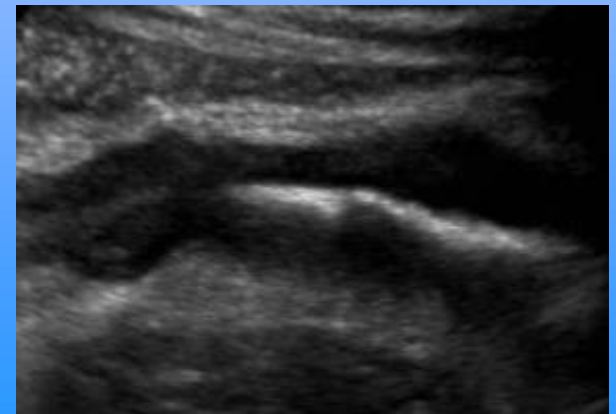
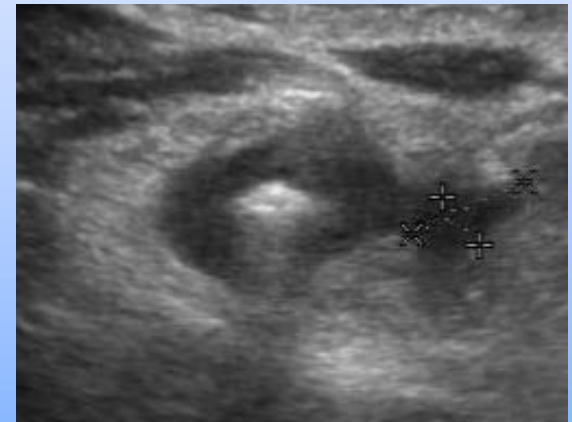
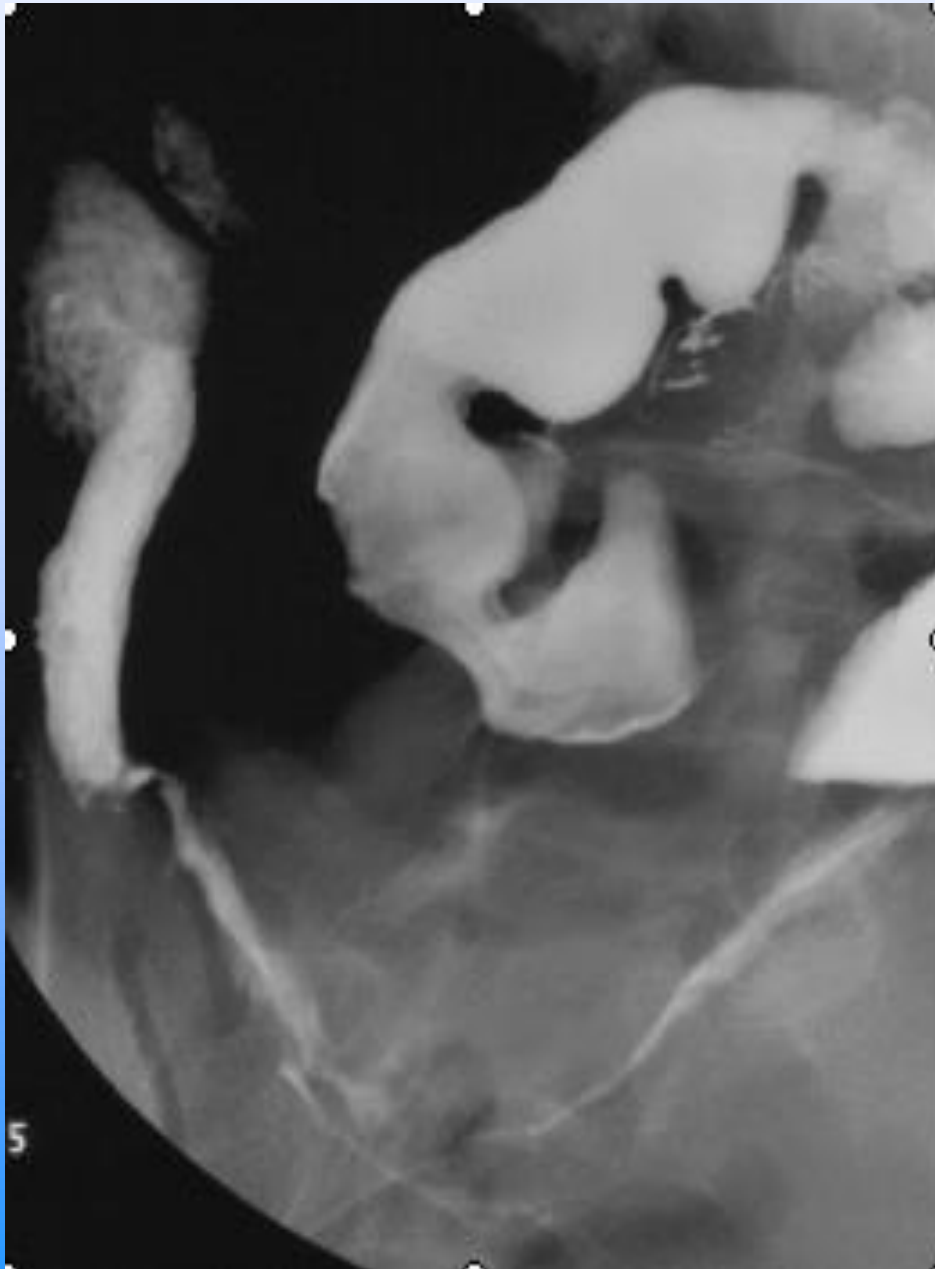


# US et CROHN

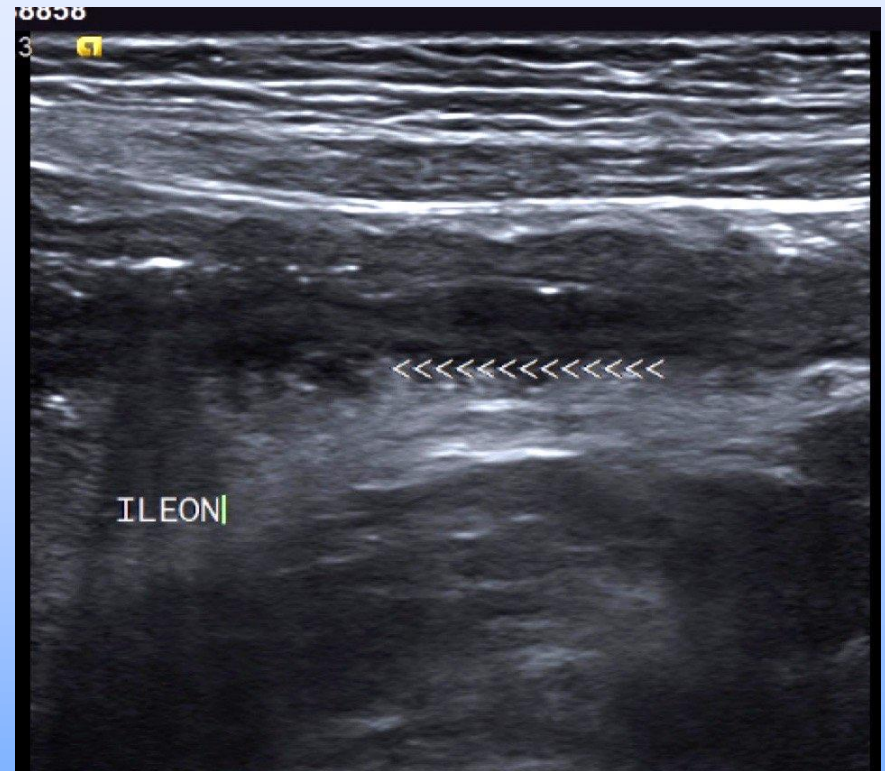
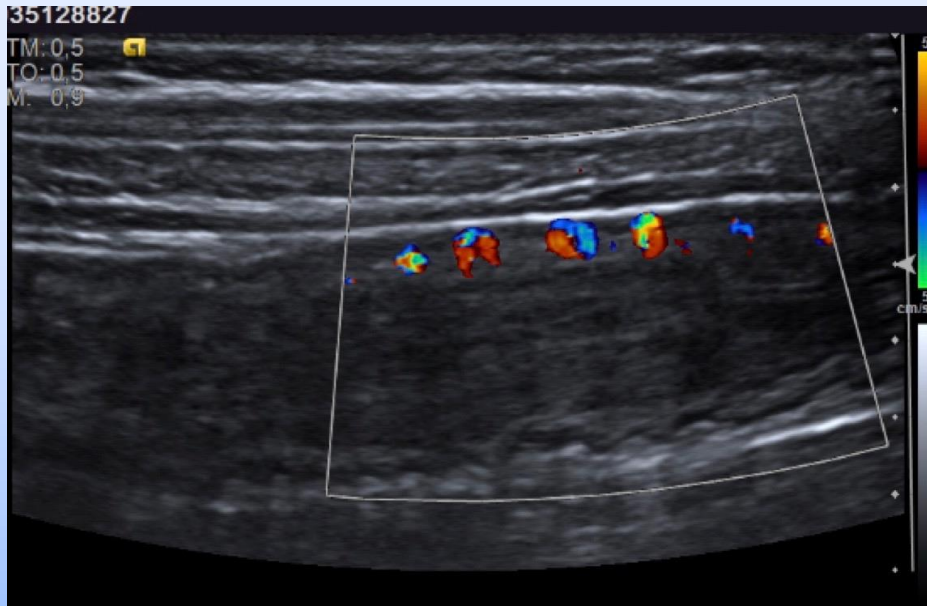
- Diagnostic : iléite vs appendicite
- Extension
- Complications: fistules, abcès
- Activité : réponse thérapeutique
- Pronostic



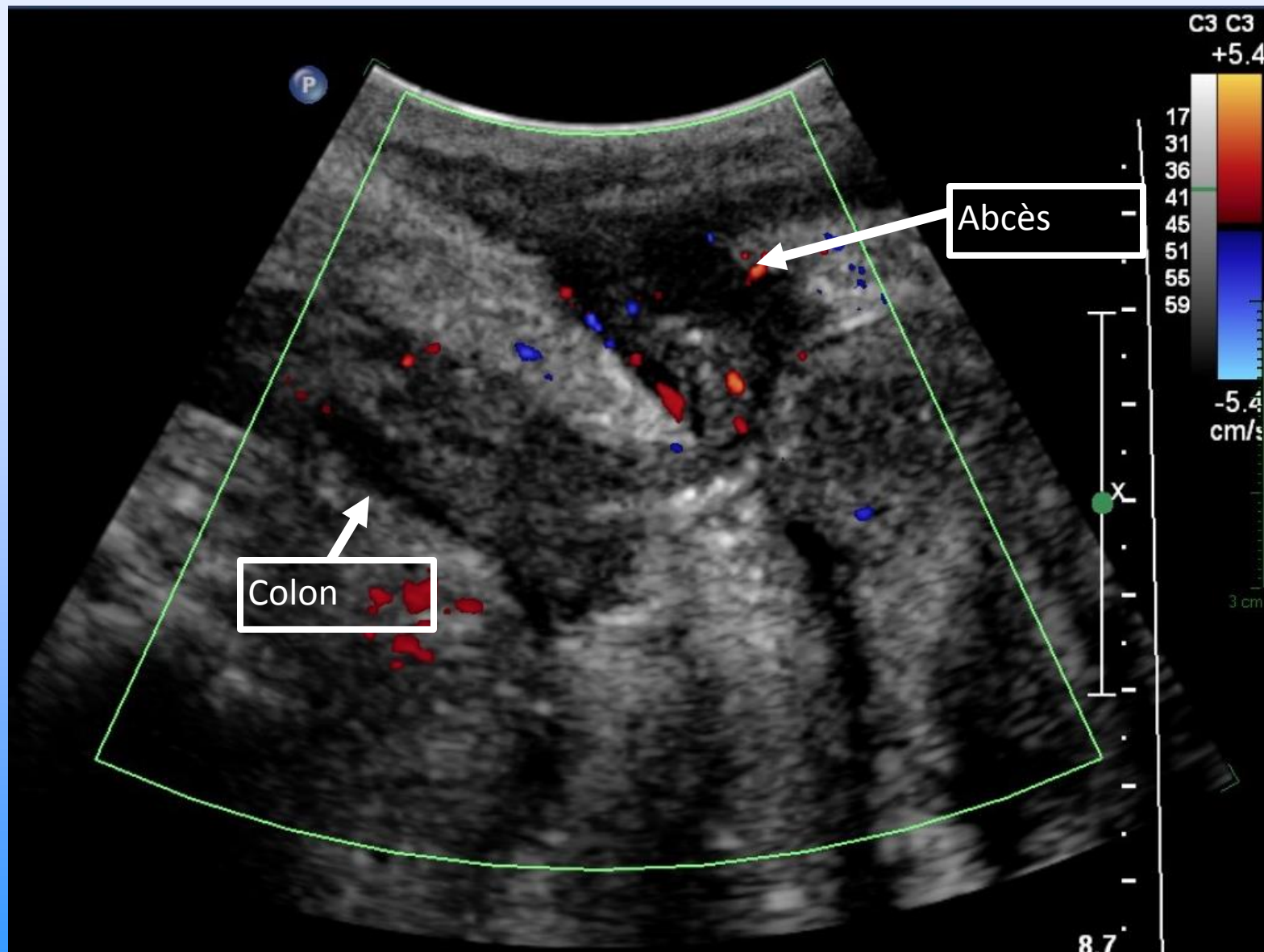




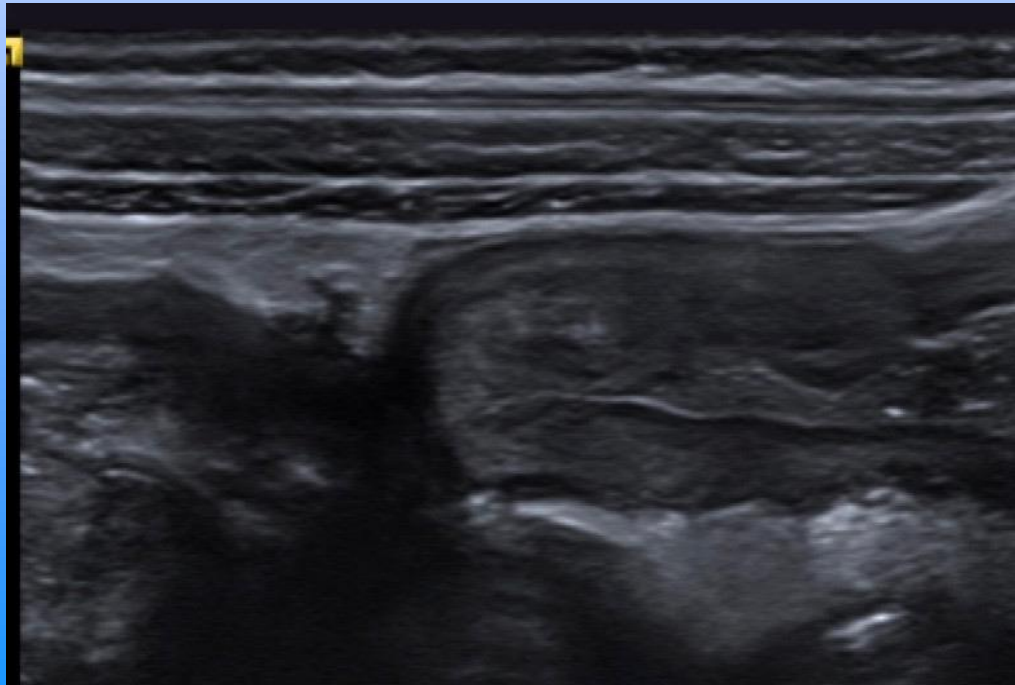
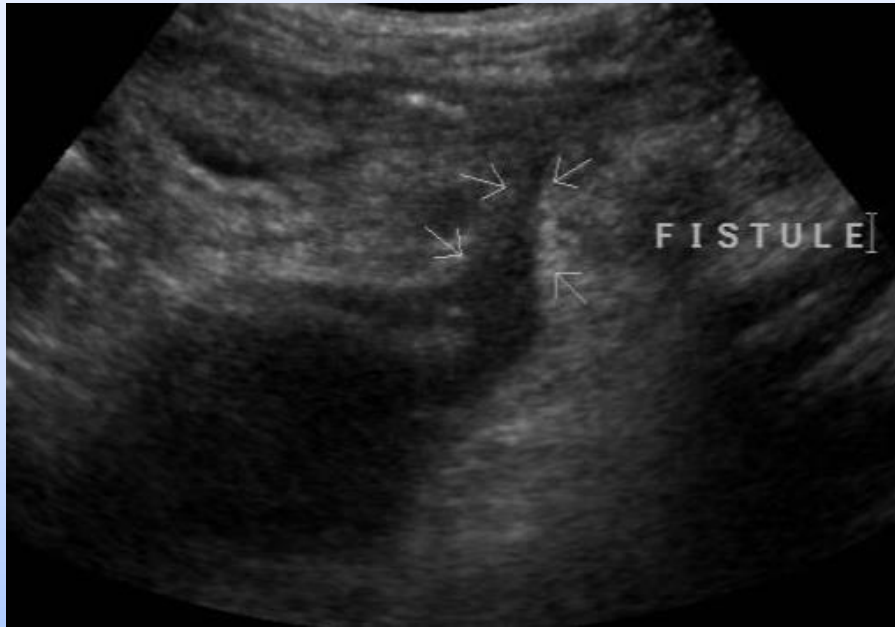
Triade de Bodart







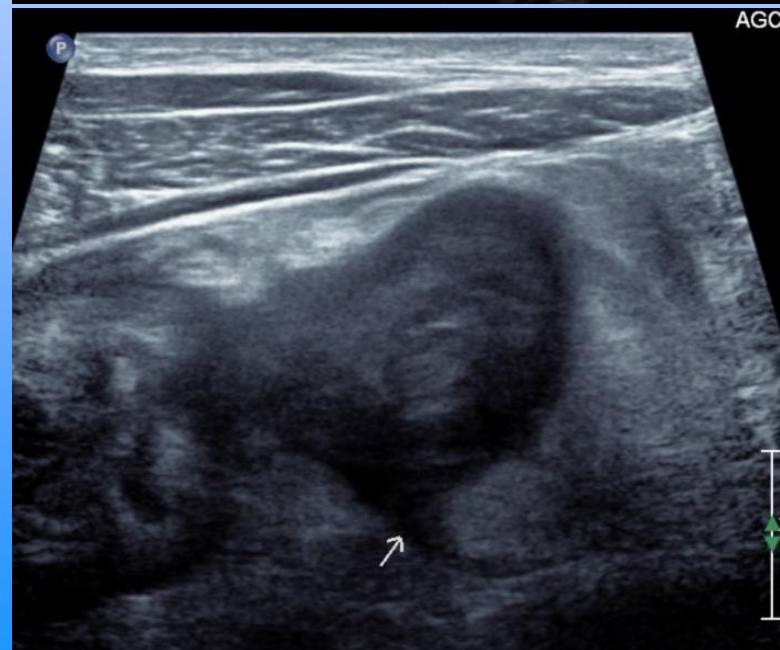
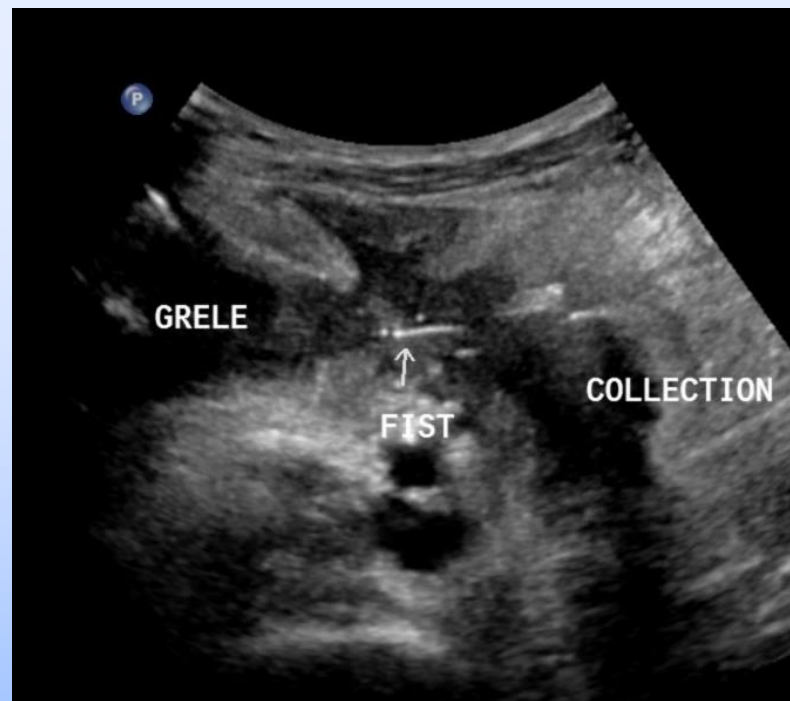
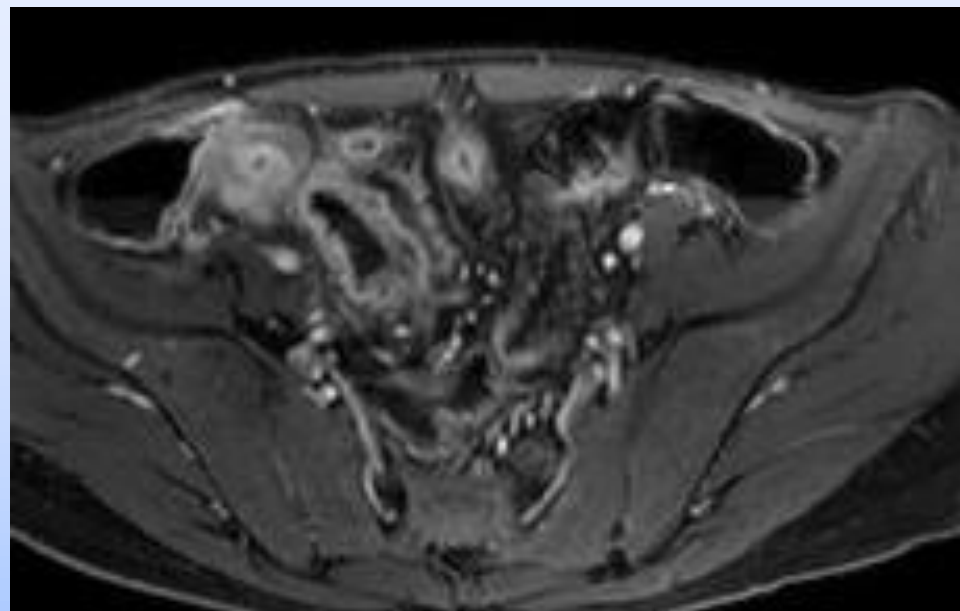
12/2007





# US et CROHN

- Diagnostic : iléite vs appendicite
- Extension
- Complications: fistules, abcès
- Activité : réponse thérapeutique
- Pronostic



## Complications :

- Fistules ou abcès (  $>$  ou  $<$  2 cm )
- Occlusion
- Perforation

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# Bowel Wall Thickness at Abdominal Ultrasound and the One-Year-Risk of Surgery in Patients with Crohn's Disease

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Fabiana Castiglione, M.D., Ilario de Sio, M.D., Antonio Cozzolino, M.D., Antonio Rispo, M.D., Francesco Manguso, M.D., Giovanna Del Vecchio Blanco, M.D., Elena Di Girolamo, M.D., Luigi Castellano, M.D., Carolina Ciacci, M.D., and Gabriele Mazzacca, M.D.

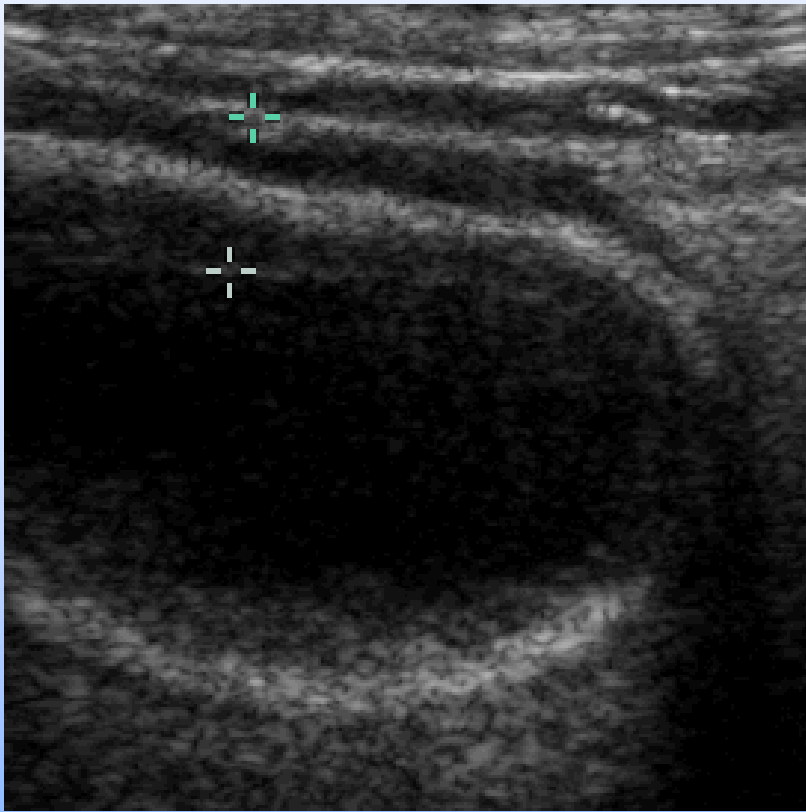
*Divisions of Gastroenterology, University of Naples "Federico II"; and The Second University of Naples, Naples, Italy*

**CONCLUSIONS:** Data suggest that bowel wall thickness >7 mm at ultrasound is a risk factor for intestinal resection over a short period of time. Routine use of abdominal ultrasound during evaluation of patients with Crohn's disease may identify a subgroup that is at high risk for surgery.

(Am J Gastroenterol 2004;99:1977-1983)

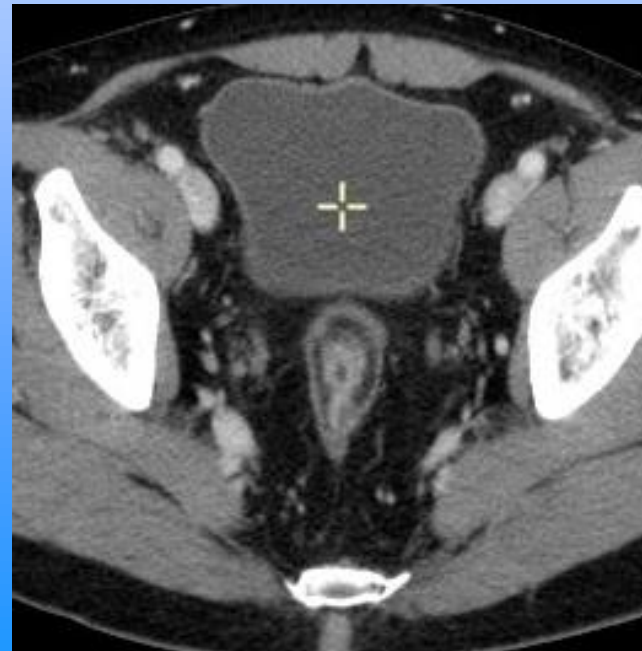
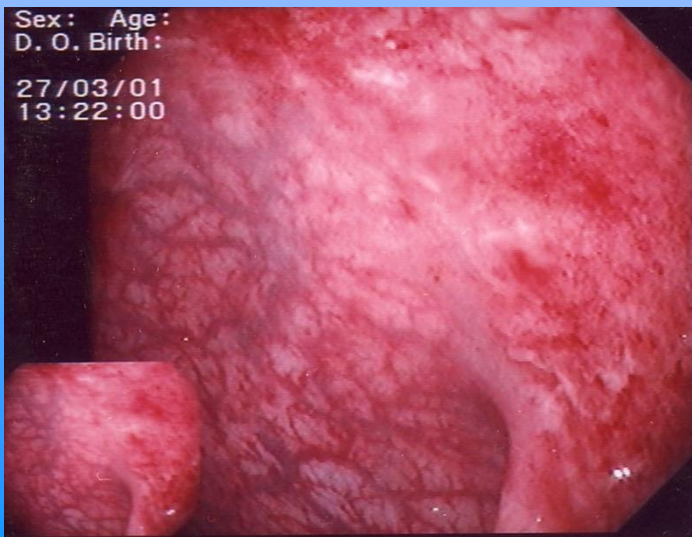
# RCUH vs Crohn

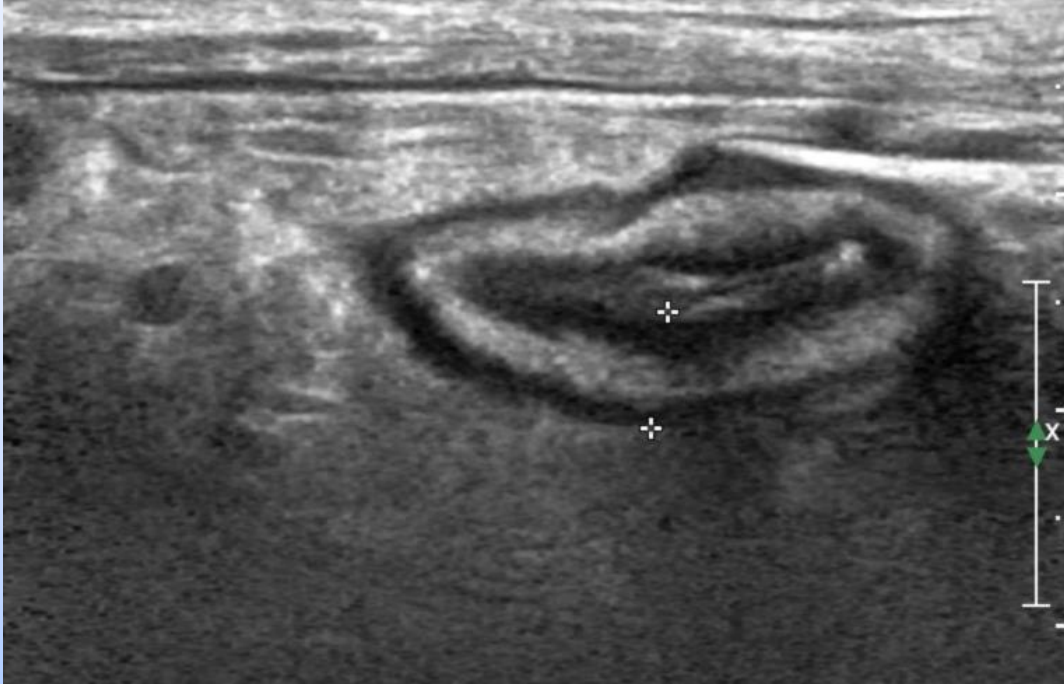
- Aspect de la paroi
  - Topographie des lésions
  - Anomalies péridigestives
    - Fistules
    - Abscès
- 

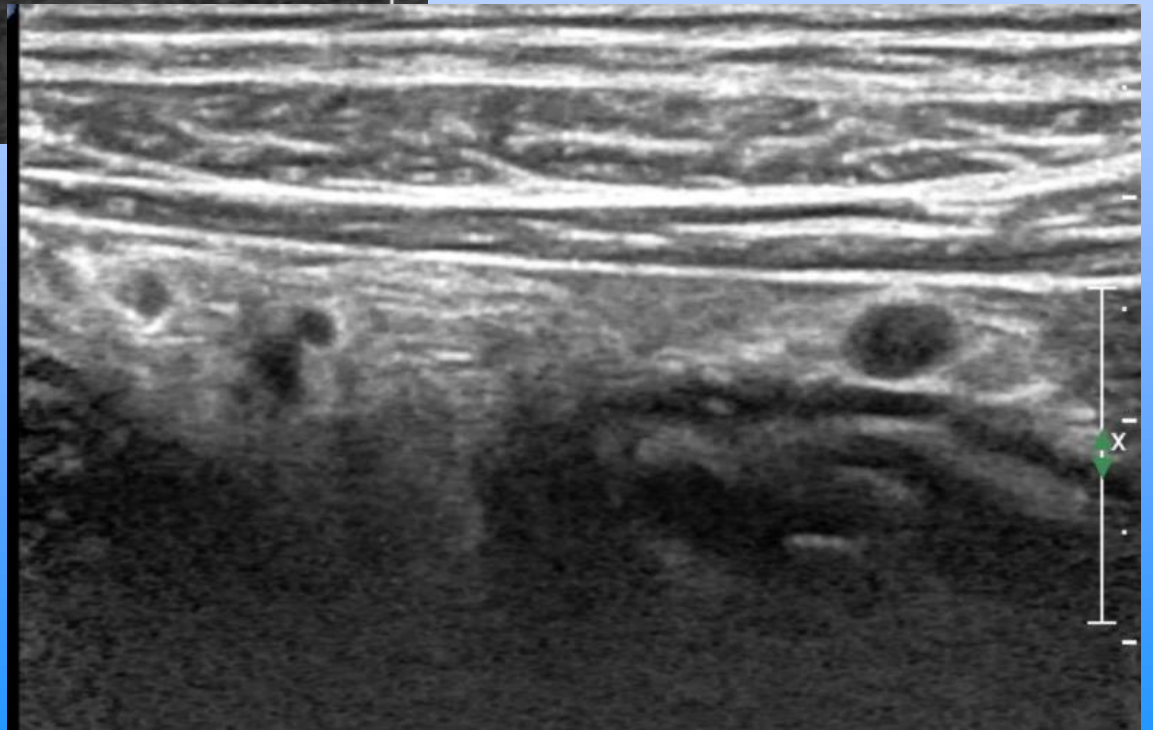
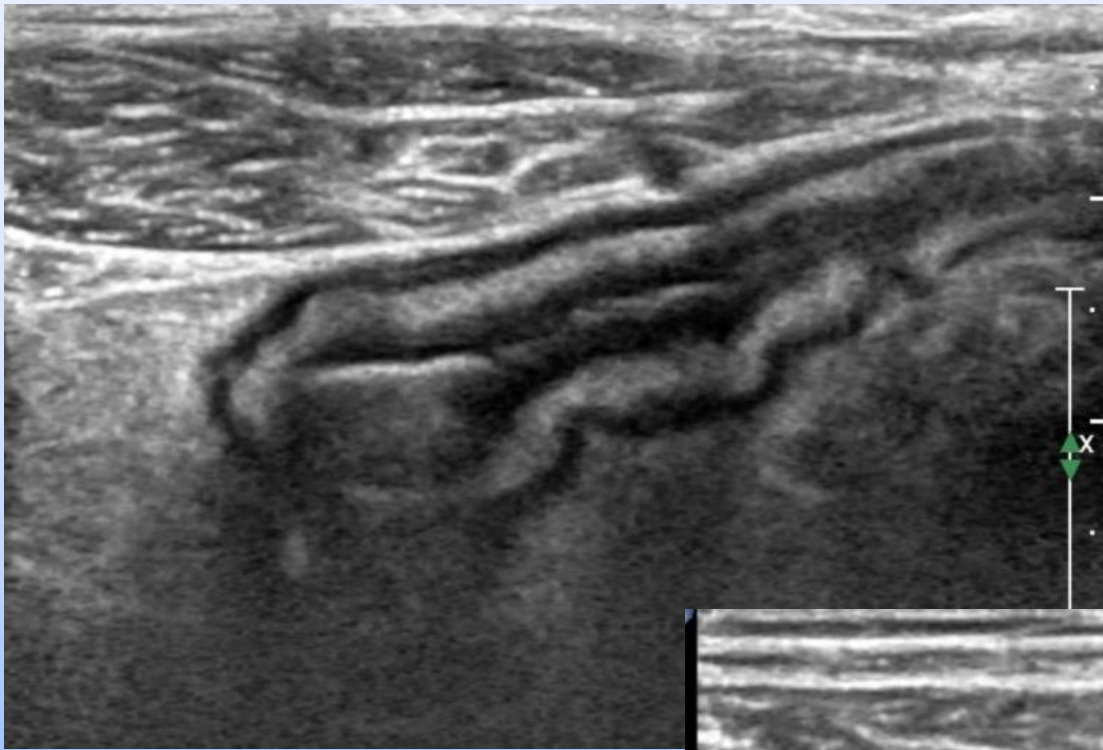


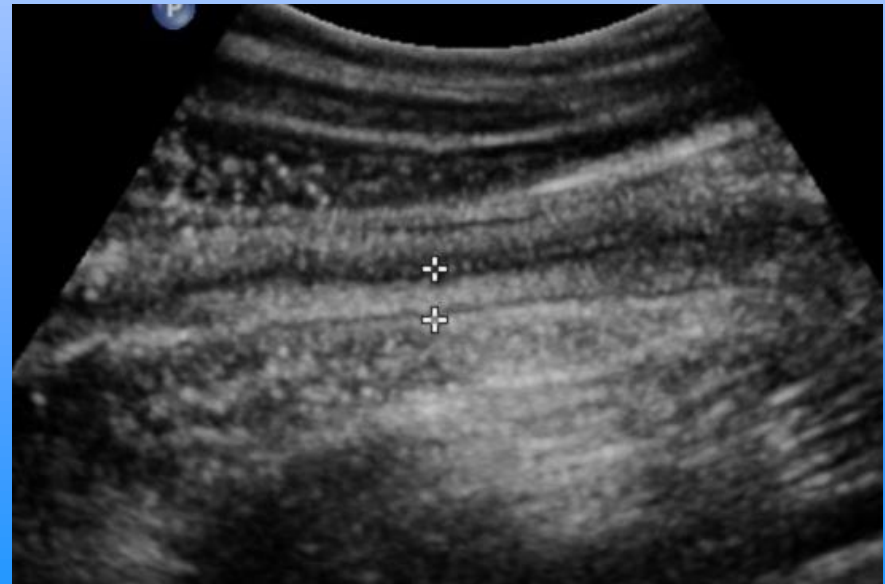
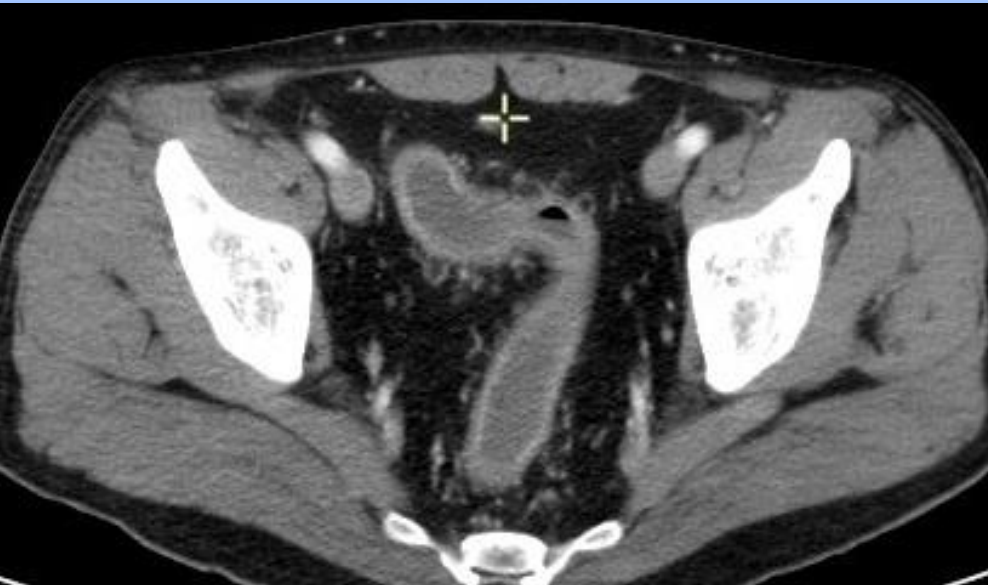
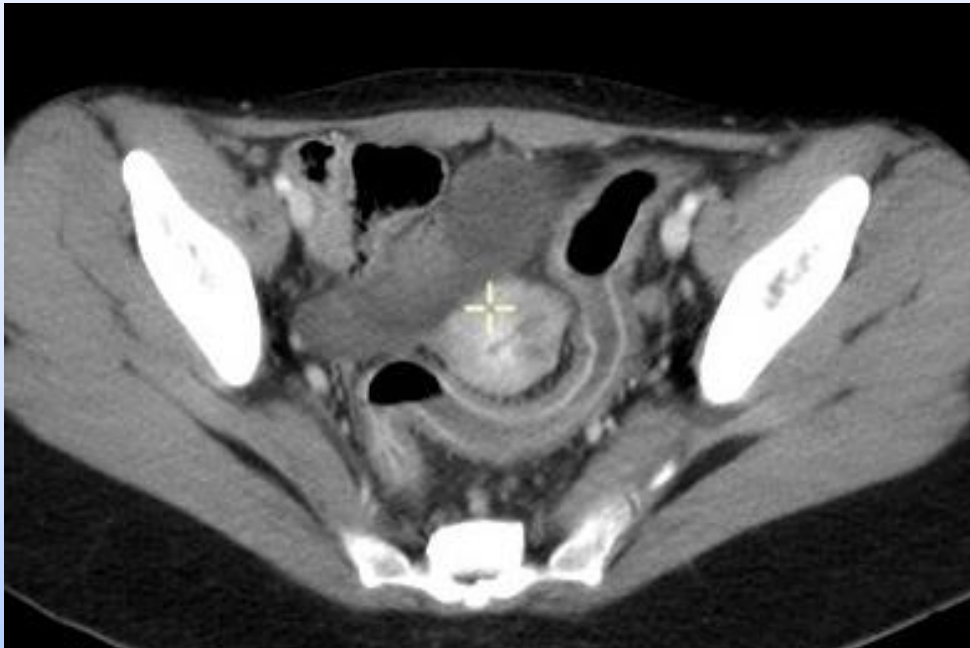
Sex: Age:  
D. O. Birth:

27/03/01  
13:22:00











# US et MICI

- Diagnostic :
  - iléite vs appendicite
  - Crohn vs RCUH
- Extension
- Complications: fistules, abcès, sténose
- Activité : réponse thérapeutique
- Pronostic