UNIVERSITÉ PARIS DESCARTES
MEMBRE DE USPC Université Sorbonne Paris Cité

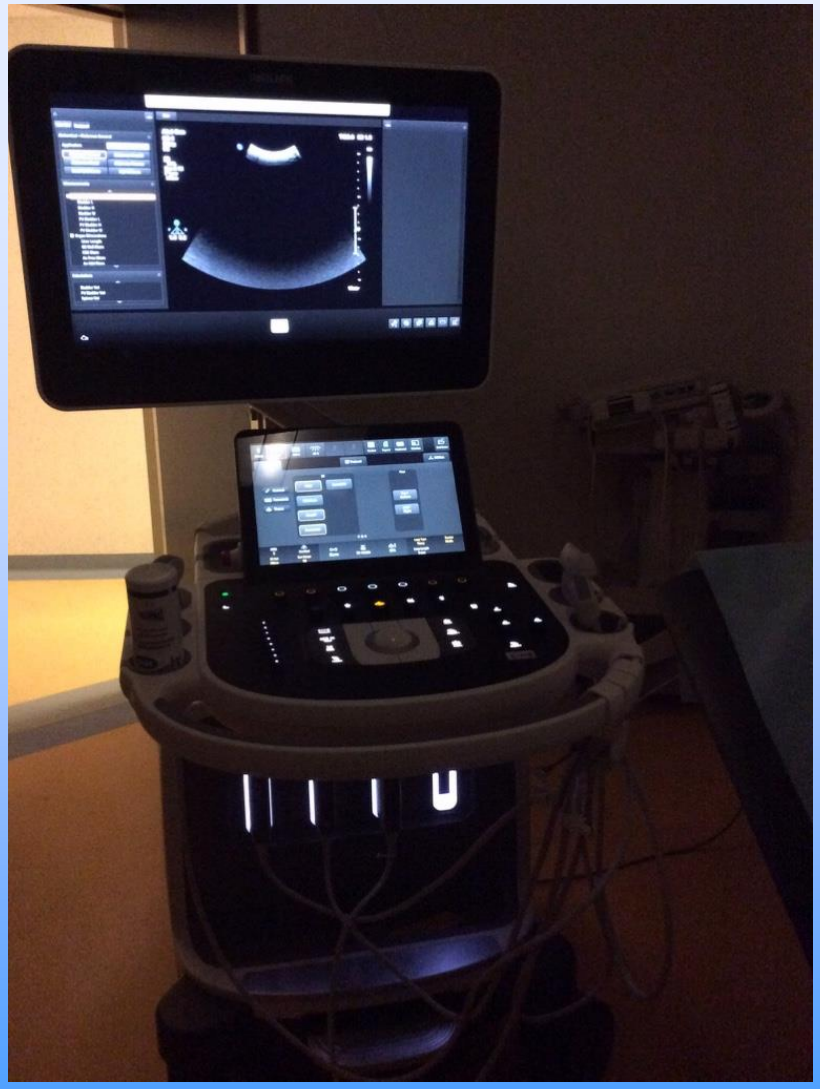
DIU D'ECHOGRAPHIE ET TECHNIQUES ULTRA SONORES

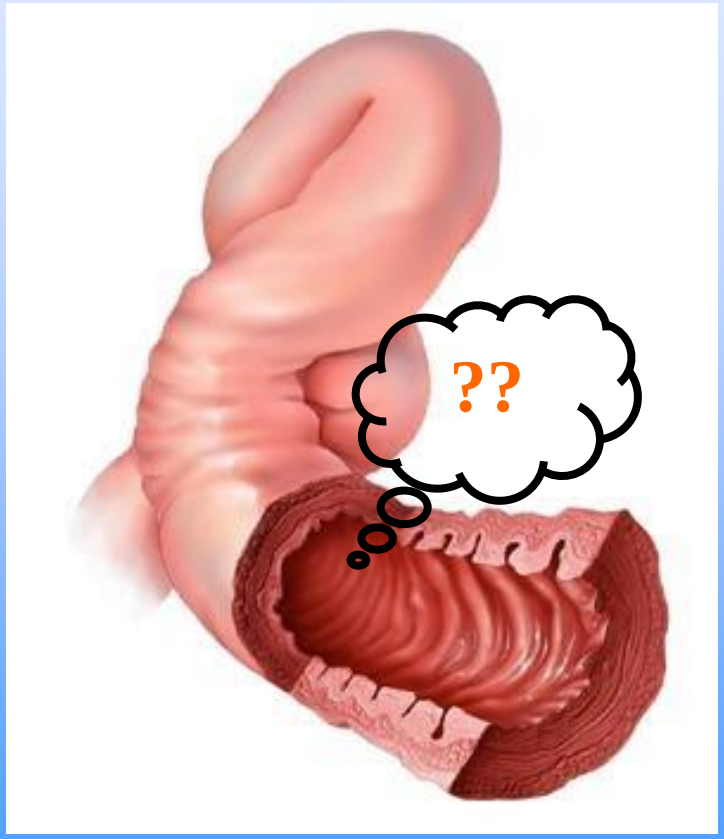
MODULE DIGESTIF

LE TUBE DIGESTIF EN ECHO

Professeur Etienne DANSE et le groupe des radiologues abdominaux CUSL
Université Catholique de Louvain Cliniques Universitaires St Luc , 1200 Bruxelles

Docteur Pascale PLAQUET CAMUS
CHU Amiens - Péronne





LE TUBE DIGESTIF EN ECHO

<u>Premier choix :</u>

Appendicite

MICI

<u>Utile :</u>

Diverticulite

« ite »

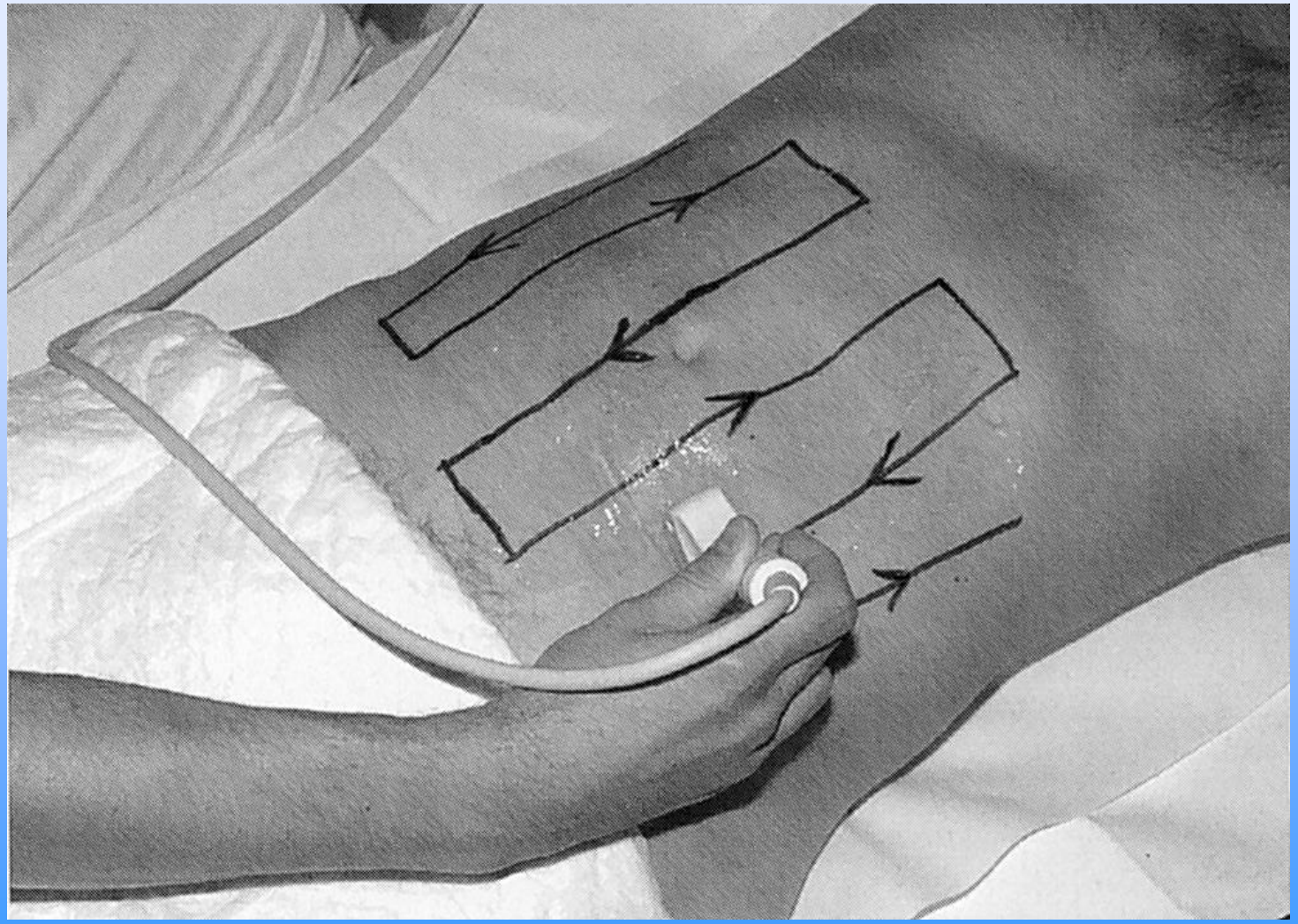
LE TUBE DIGESTIF EN ECHO

- Remarques techniques

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

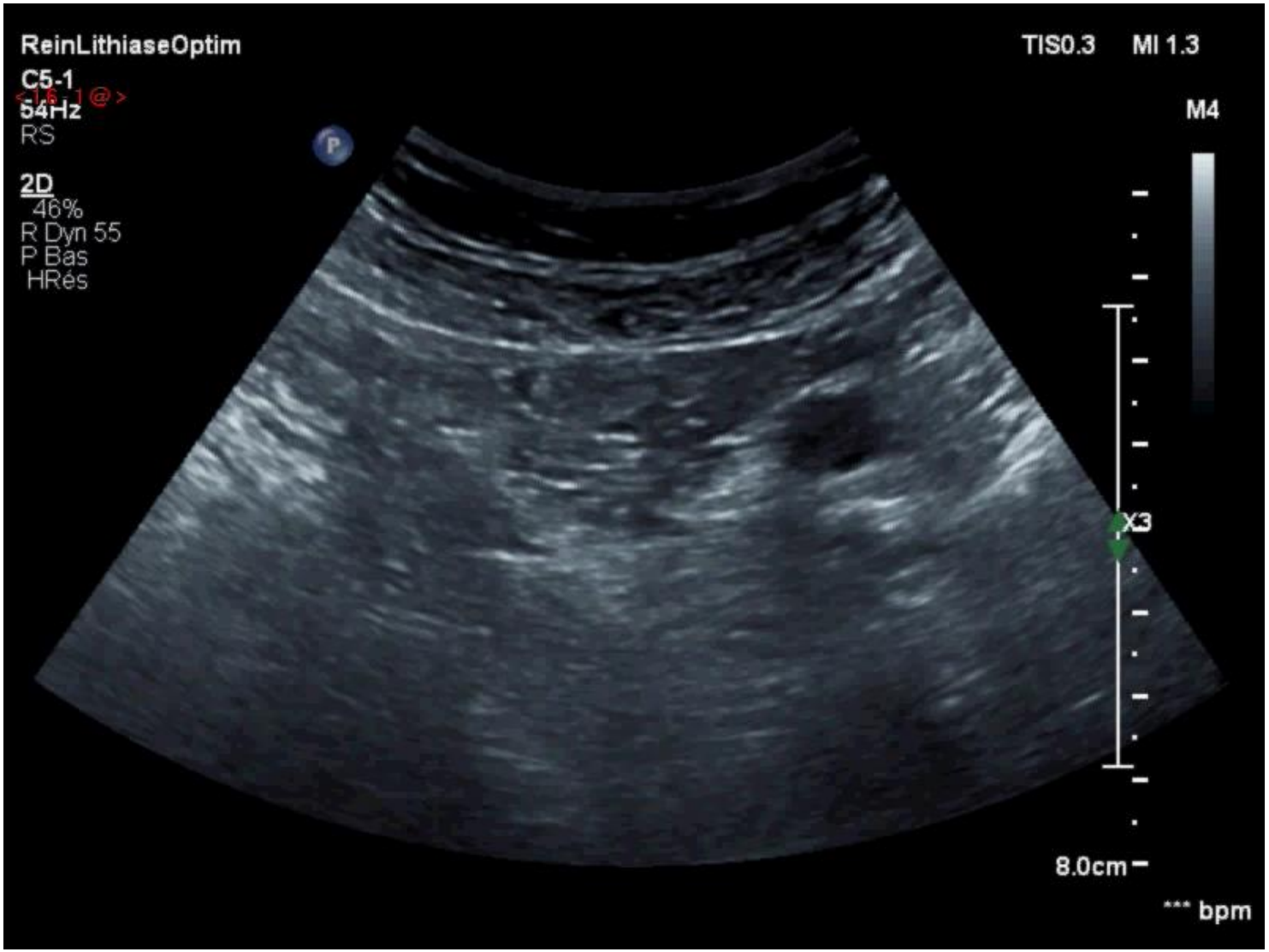
- Situations cliniques de base
- Appendicite et dd
- Diverticulite
- MICI
- Colites

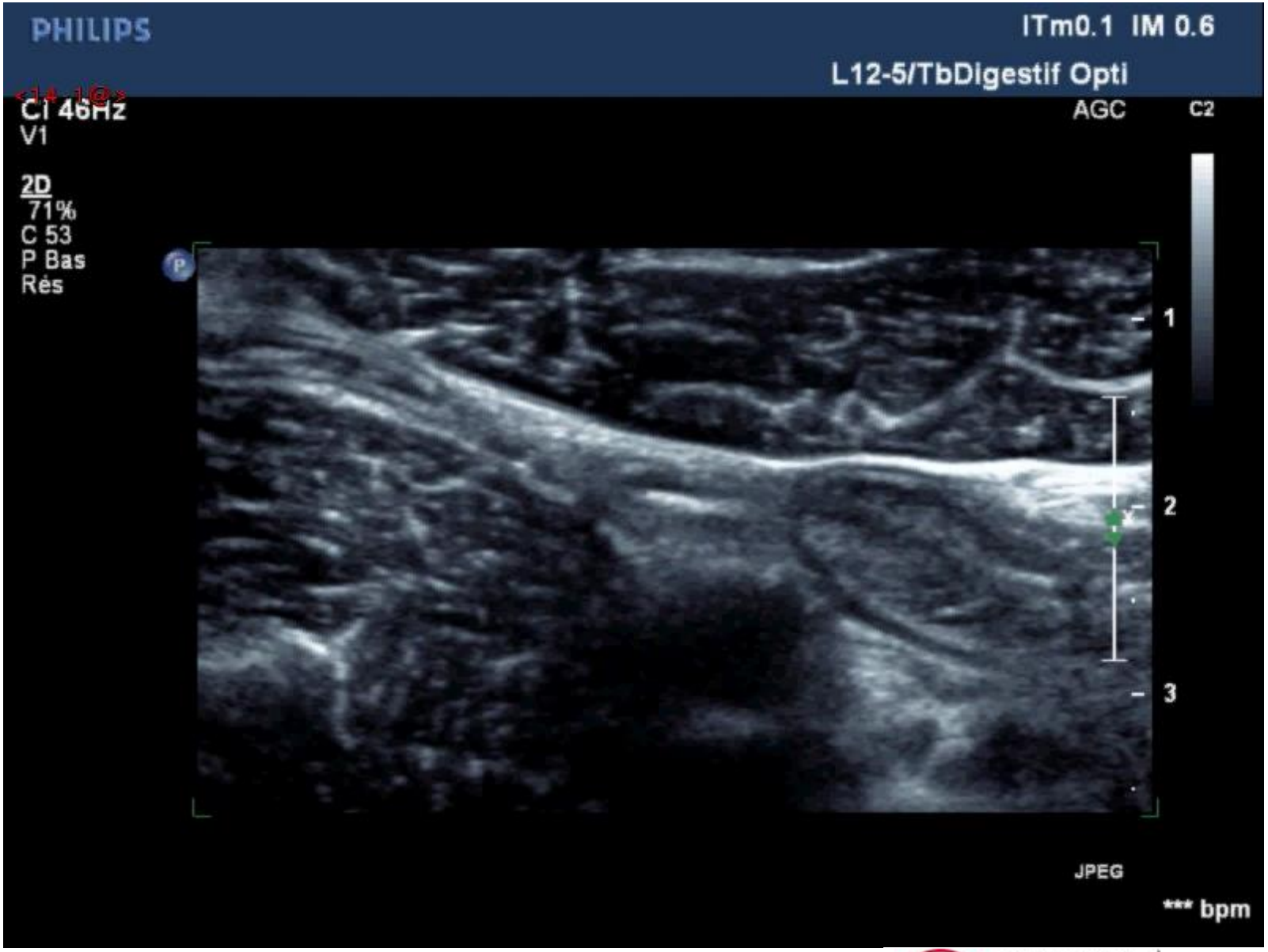
Technique

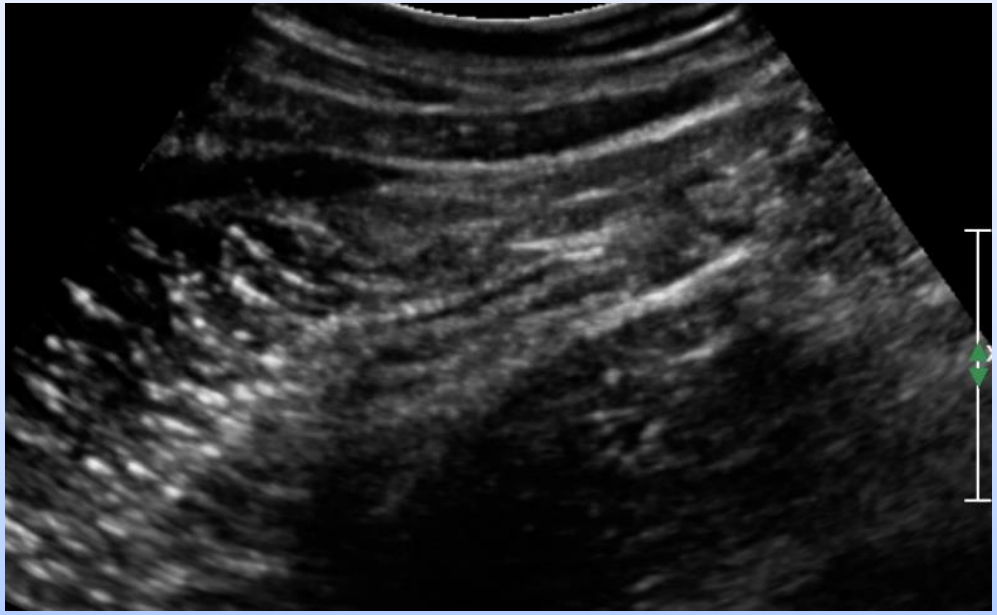


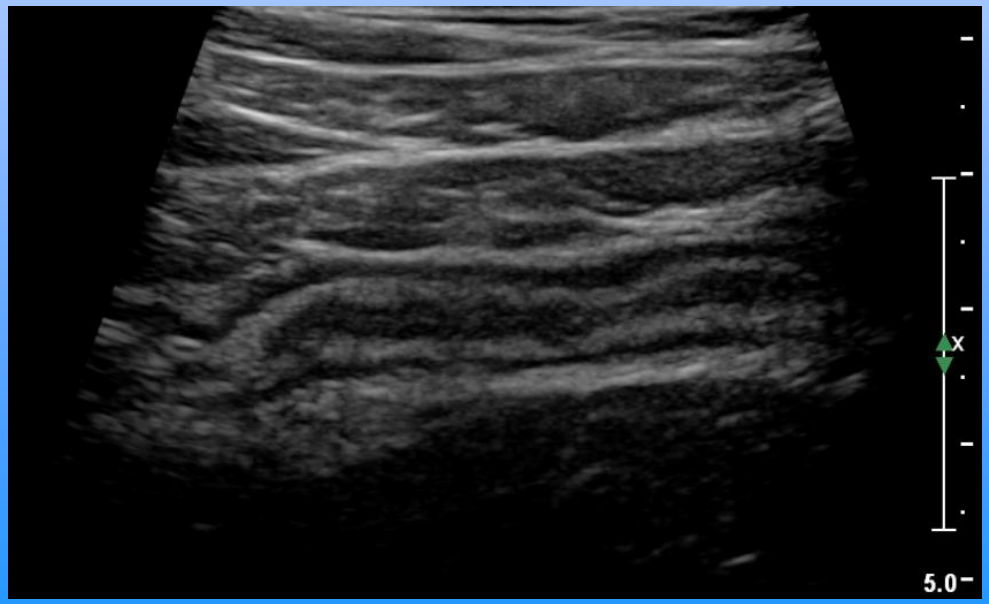
Sturm et al Eur Radiol, 2004

Technique



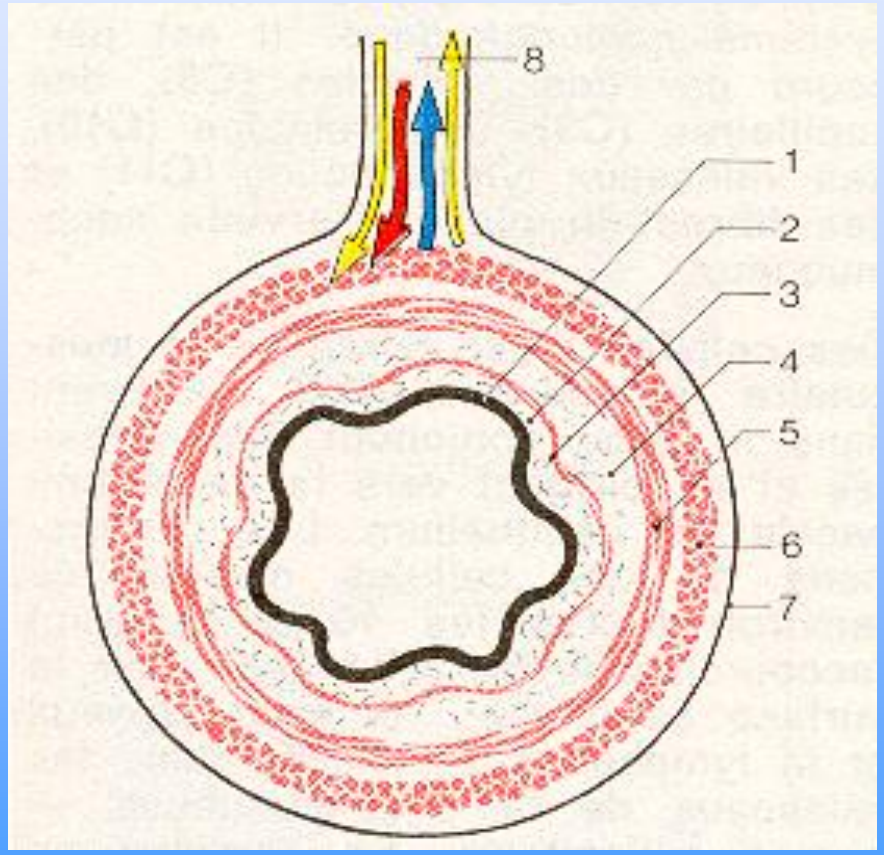


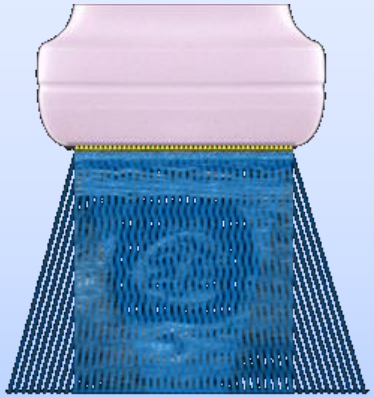


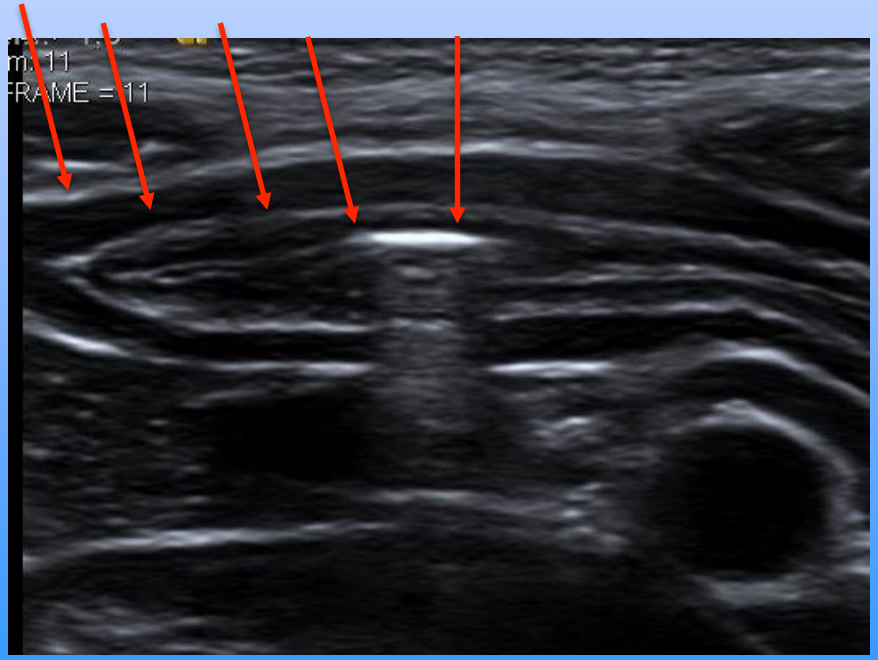


Analyse du tube digestif en US :
Sonde de basse fréquence
Sonde de haute fréquence

Aspect US normal du tube digestif : la signature digestive

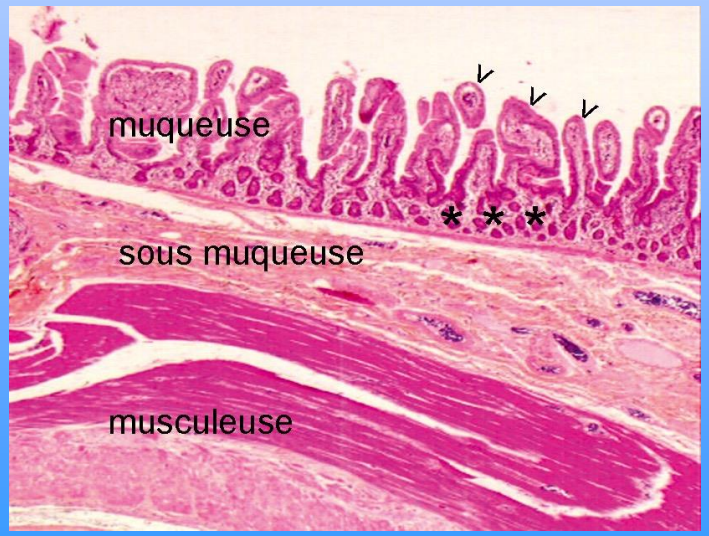


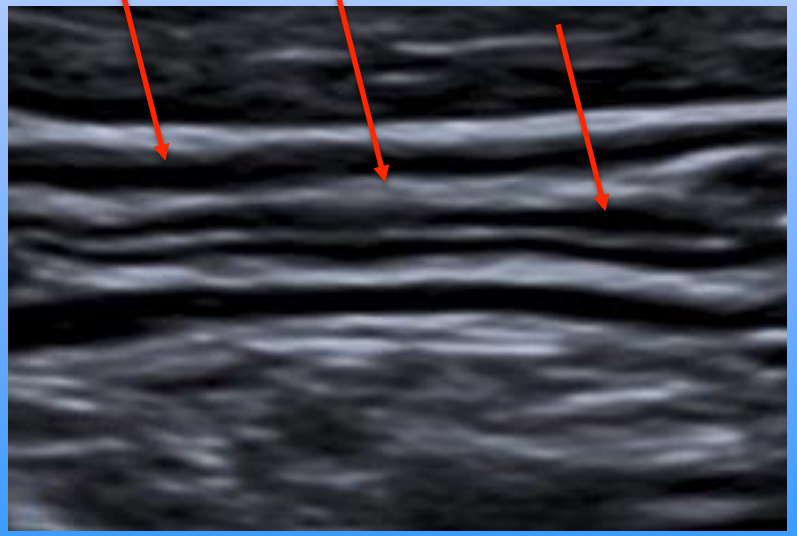




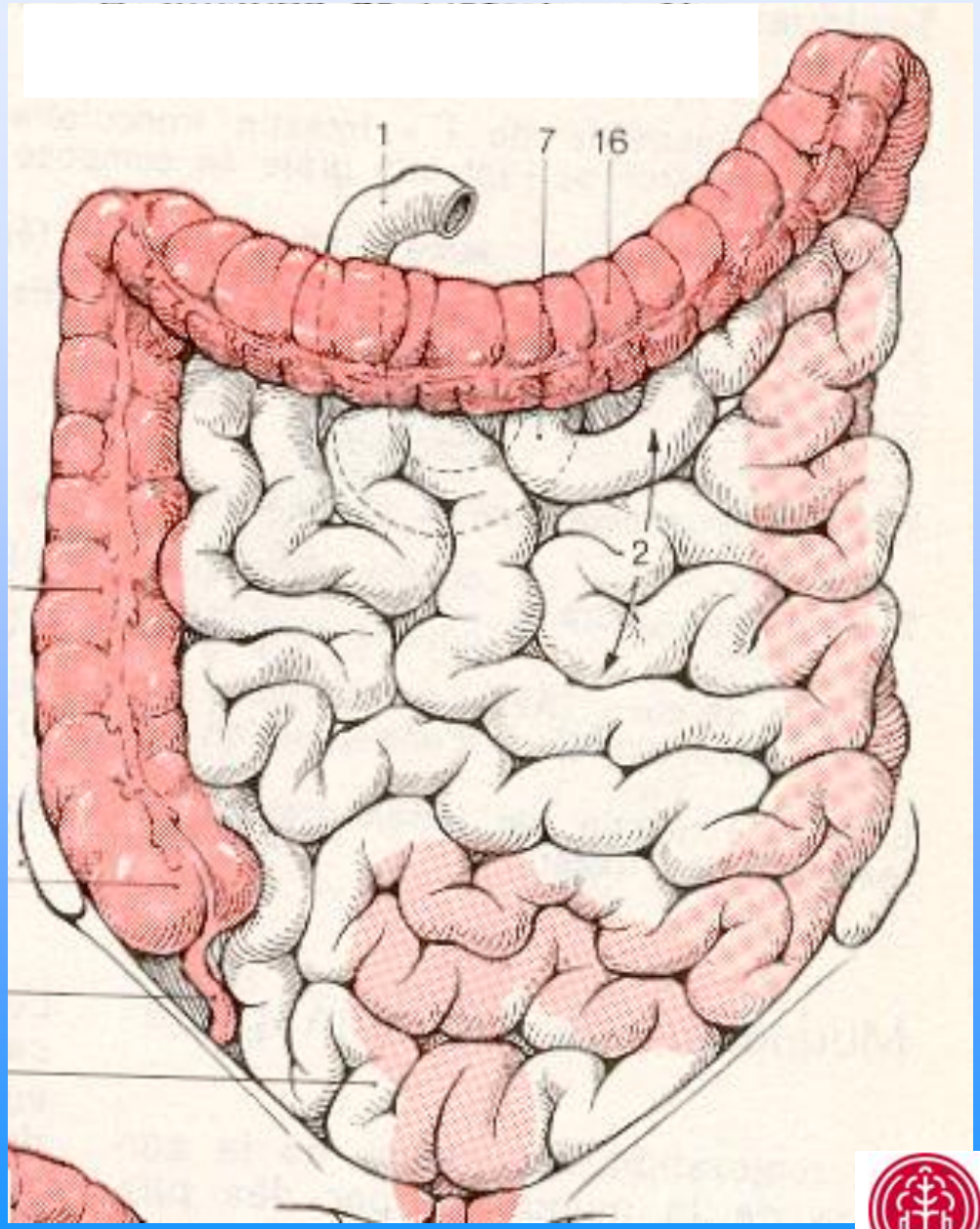
Paroi digestive normale

muqueuse : hypo
ss muqueuse : hyper
musculeuse : hypo
fine séreuse





Aspect US normal du tube digestif en fonction du segment



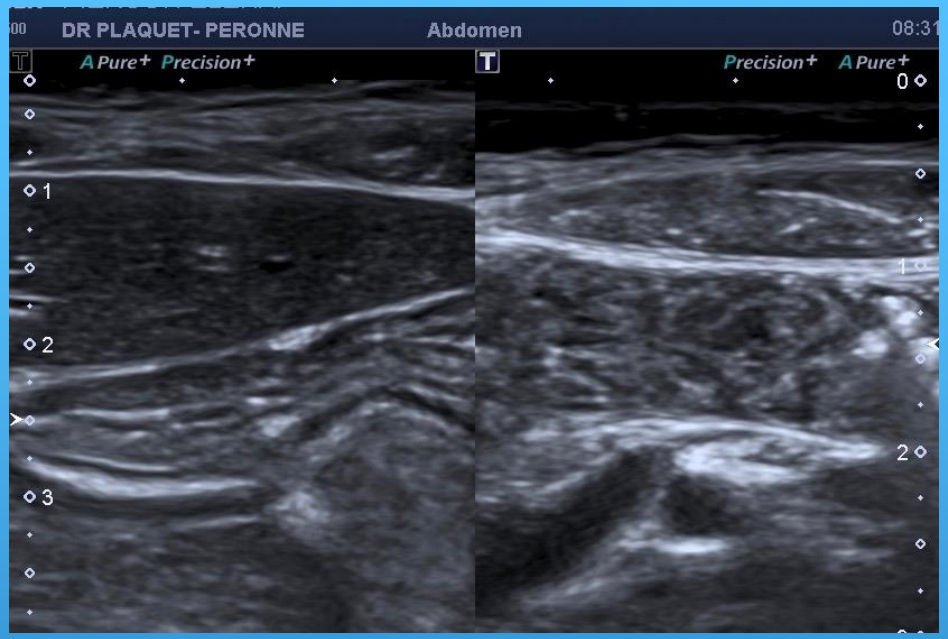
REPERES ANATOMIQUES

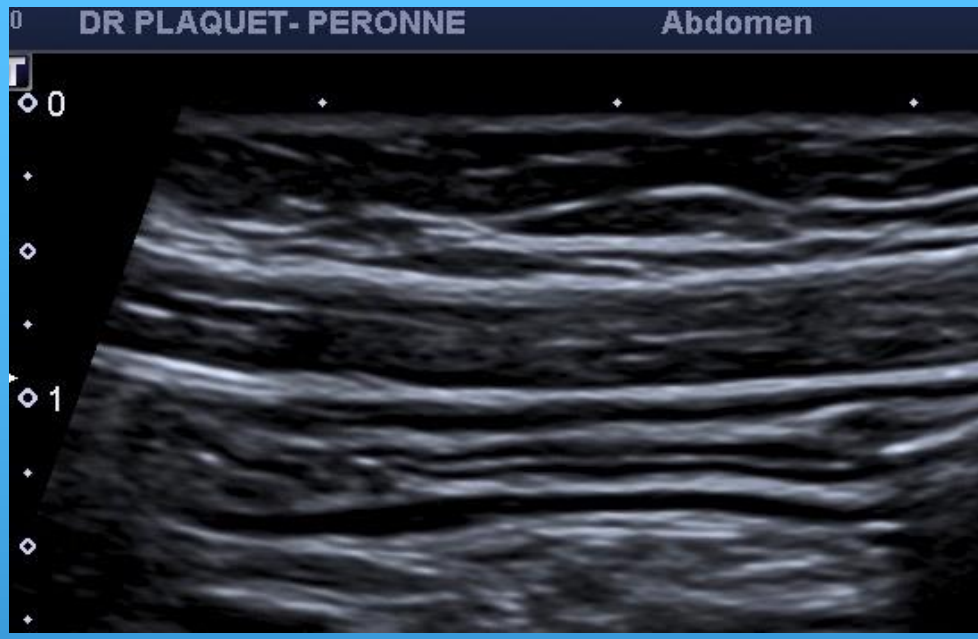
épigastre : estomac / duodénum

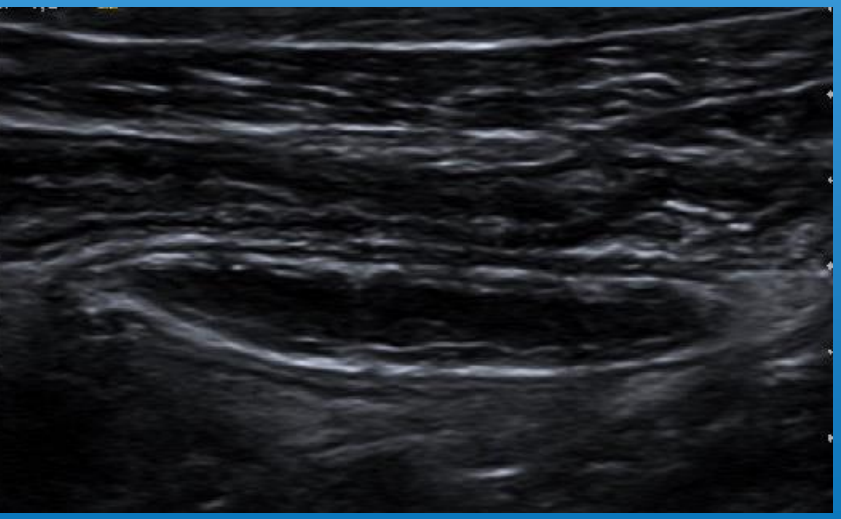
flanc droit :duodénum /colon dt

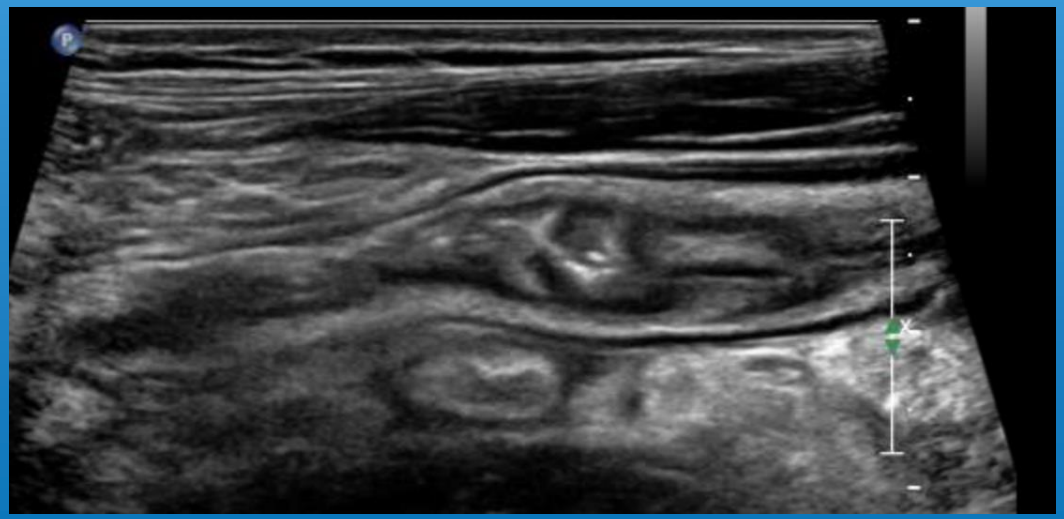
compartiment médian: grêle

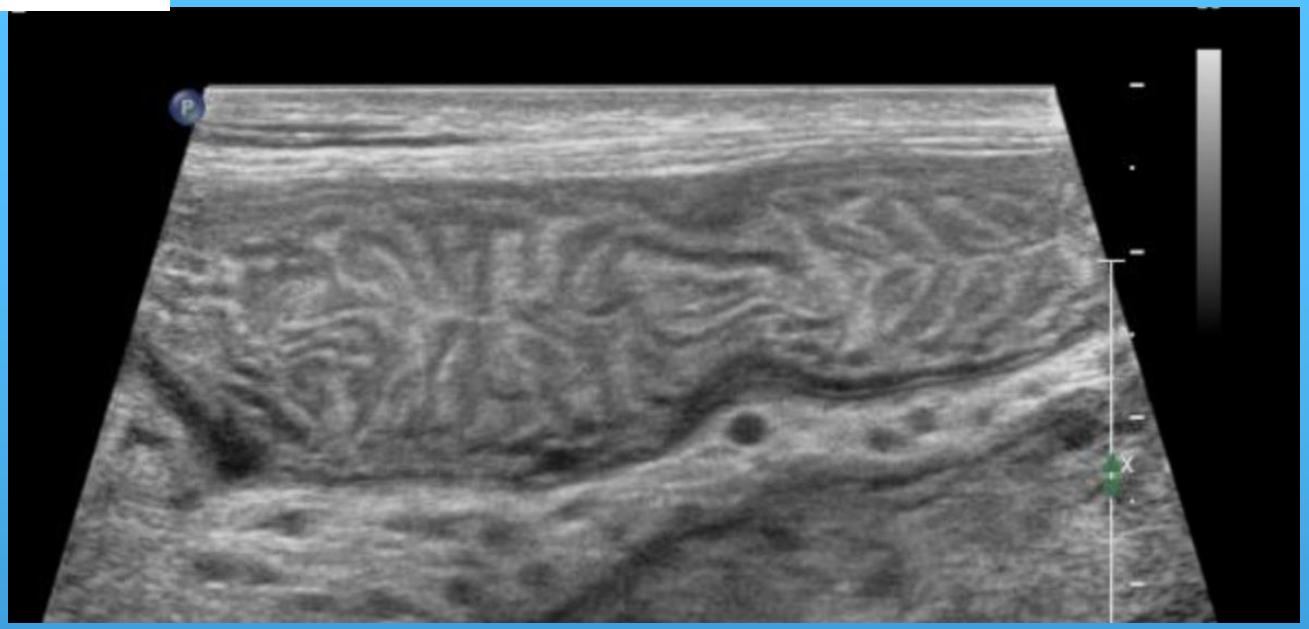
flanc gauche : colon g / sigmoïde

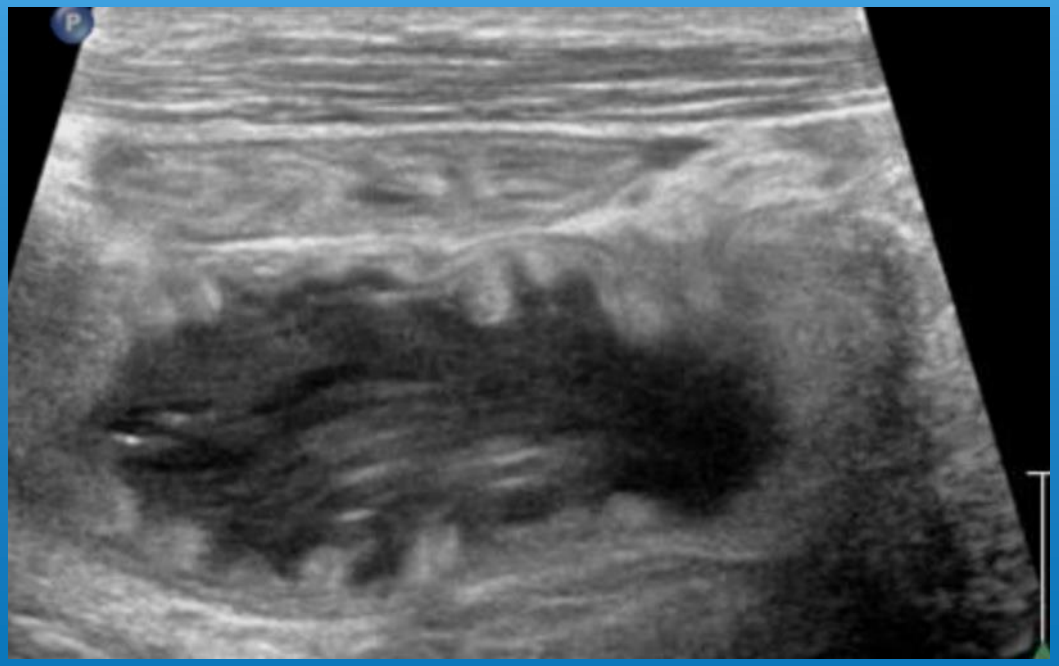

DR PLAQUET- PERONNE
Abdomen
08:31
A Pure+ Precision+
Precision+ A Pure+
1
2
3
0
1
2


DR PLAQUET- PERONNE
Abdomen
0
1

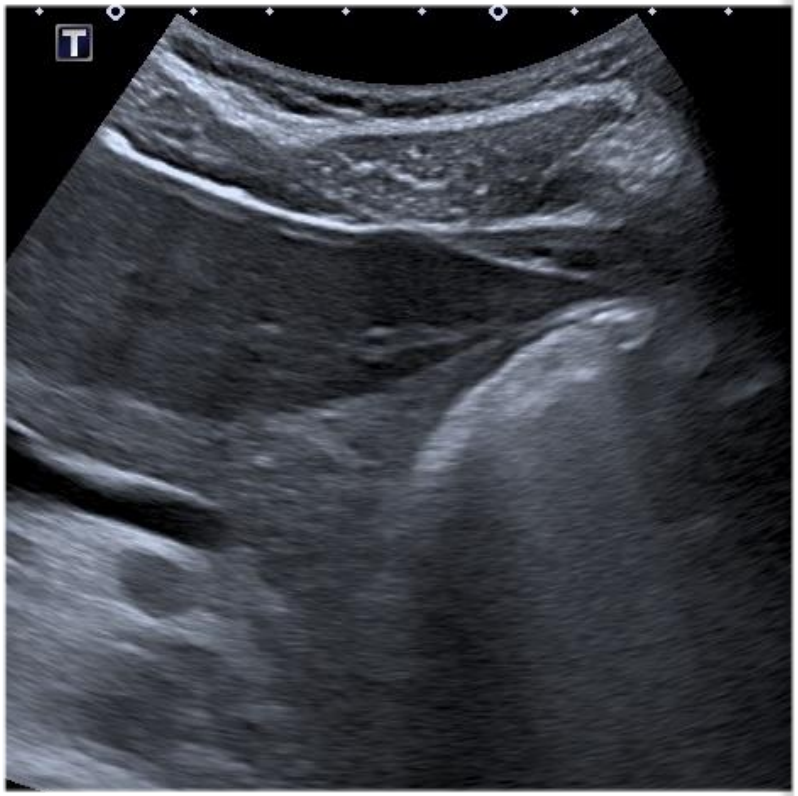


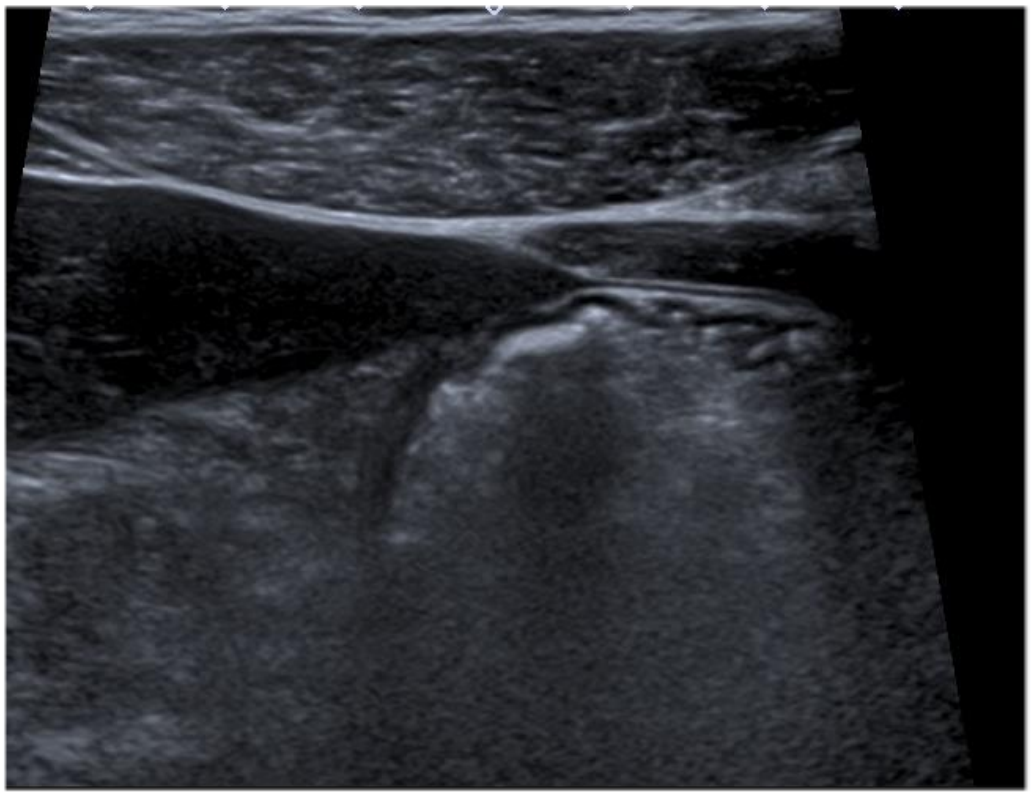


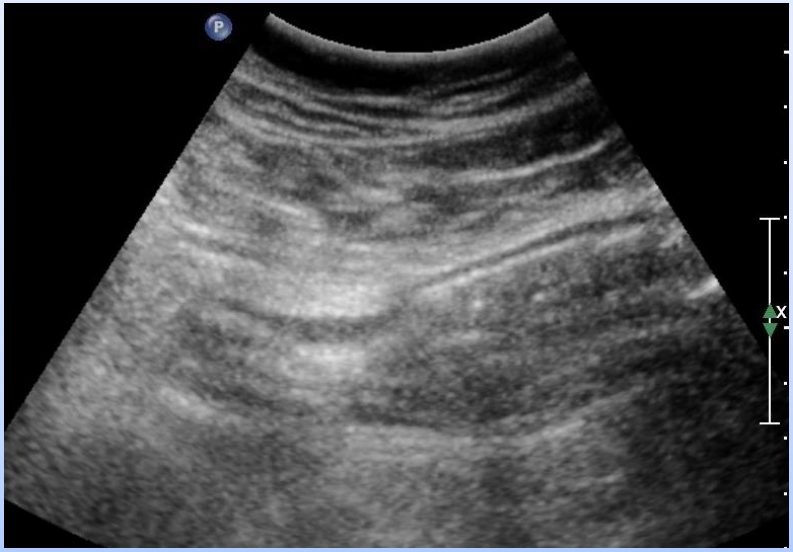


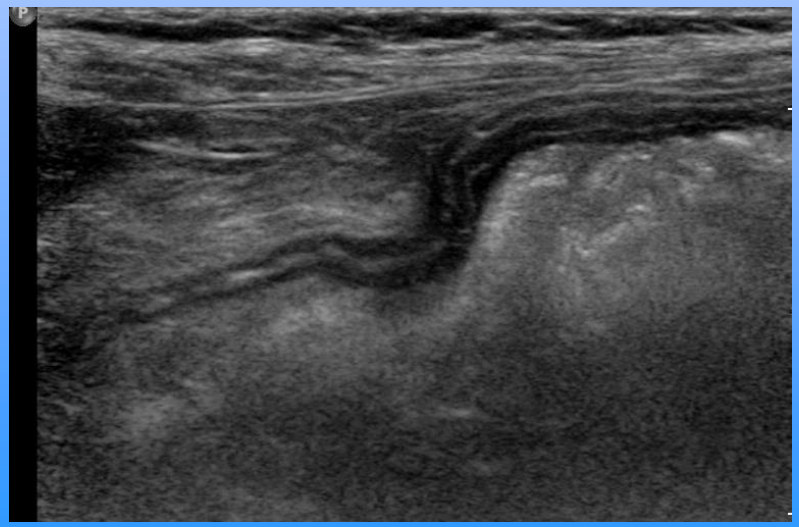


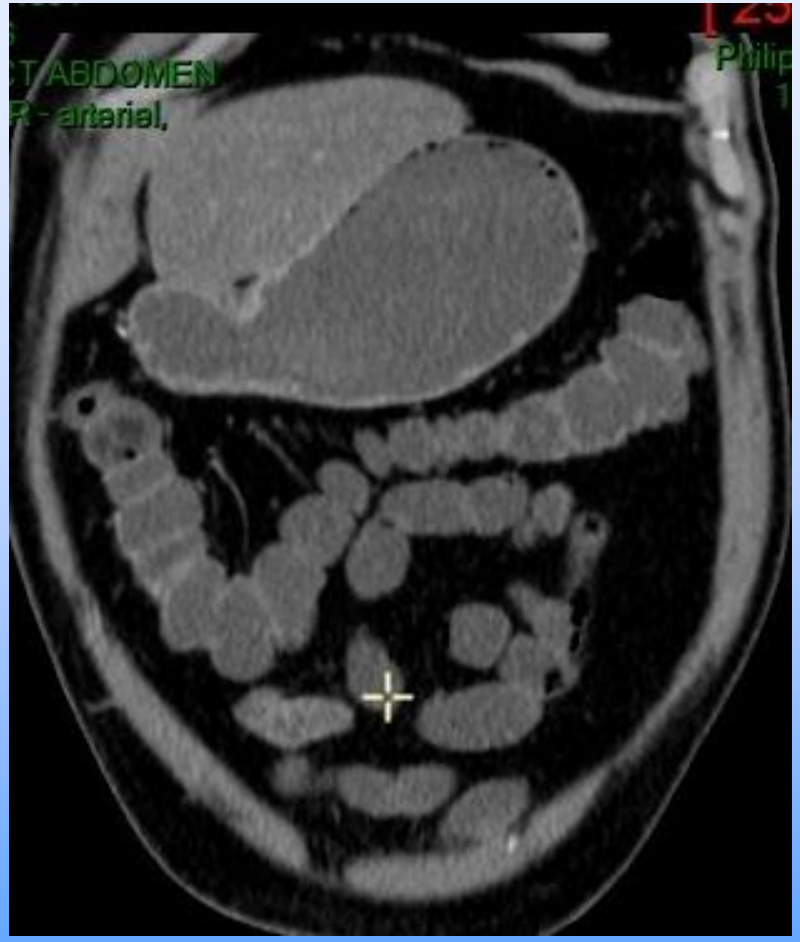
Estomac .....









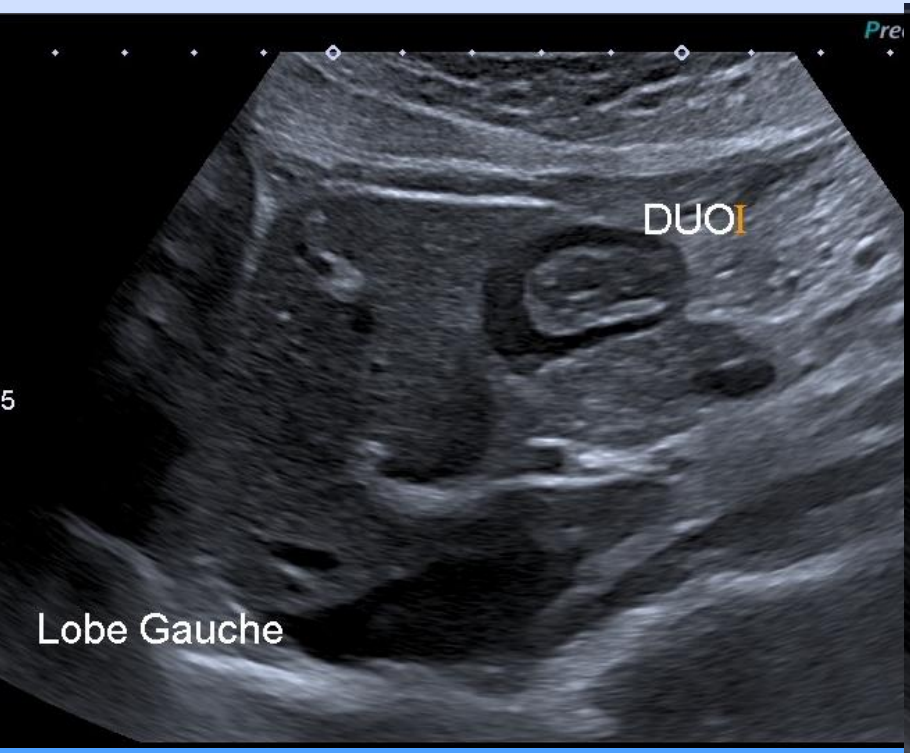


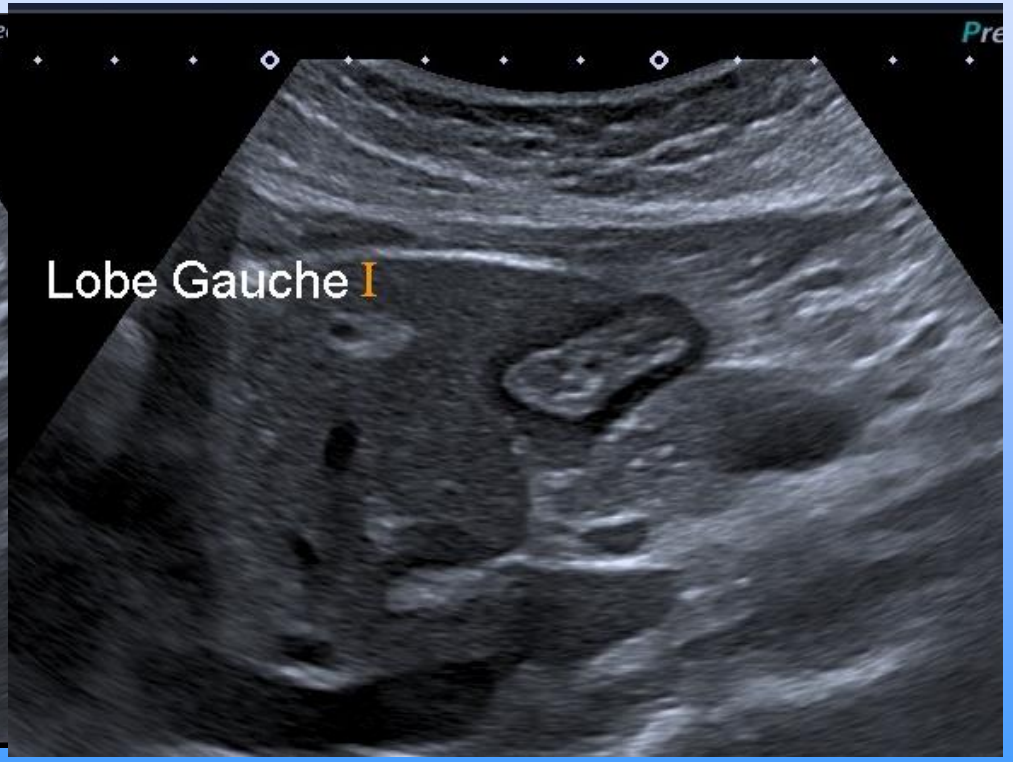
Aspect normal des parois gastriques:

- US basses fréquences
- US hautes fréquences
- CT

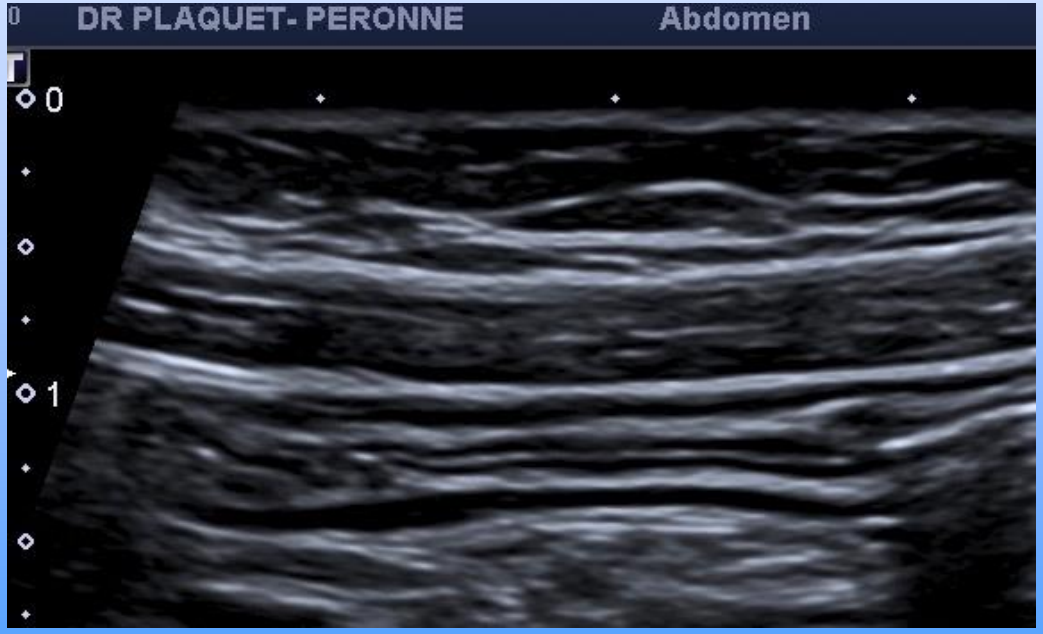
Chez le même patient

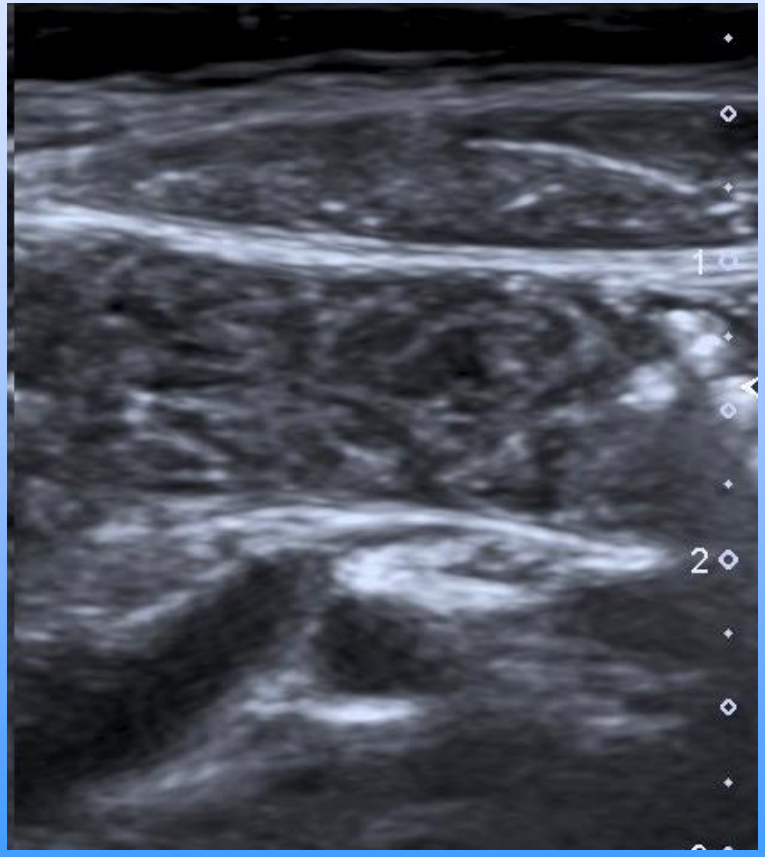
DUODENUM

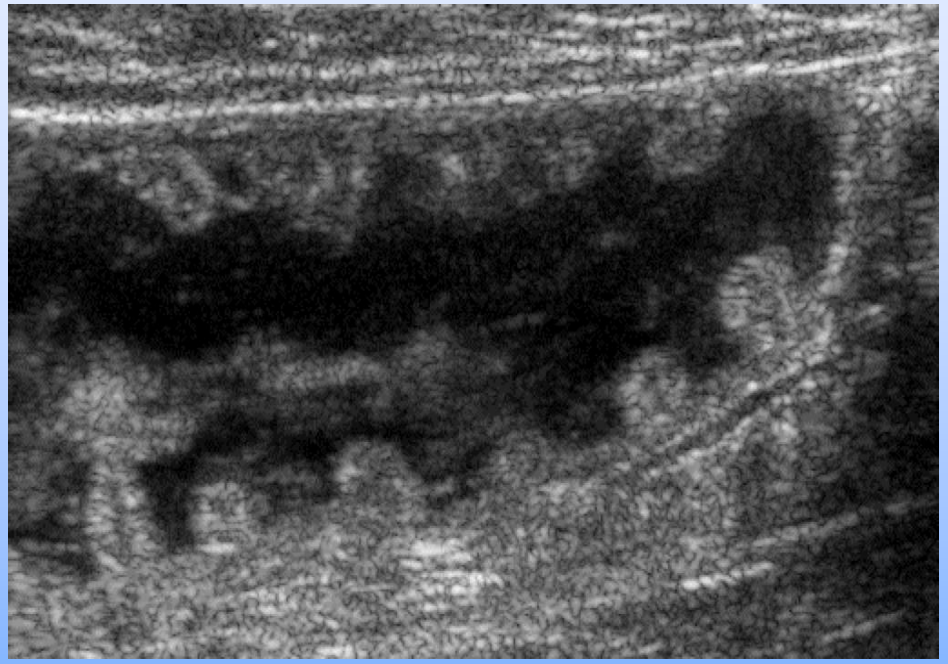


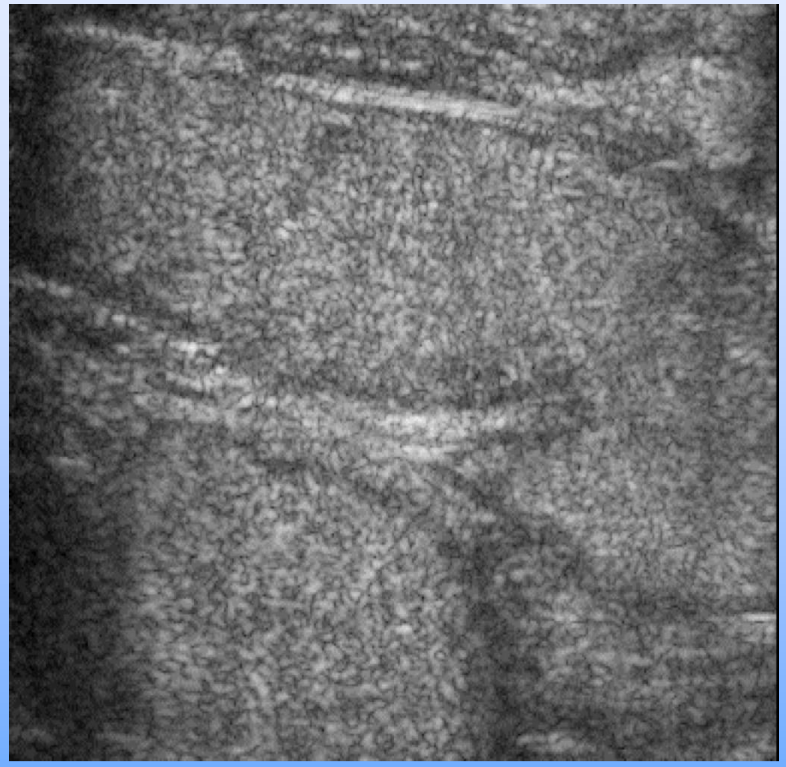


Grêle



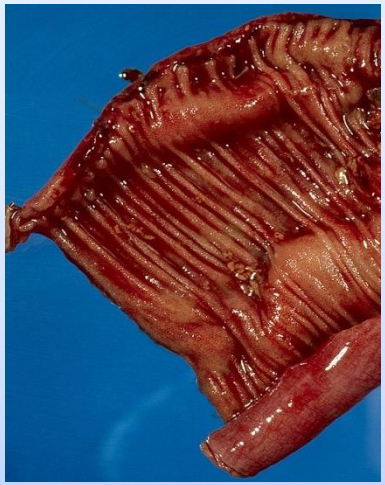






Jejunum

Ileon



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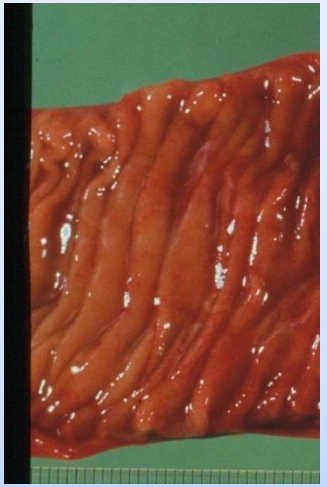
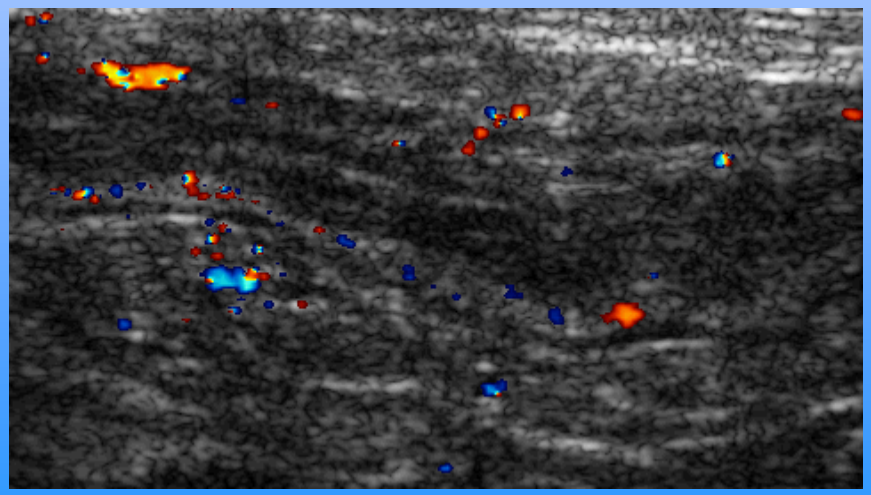
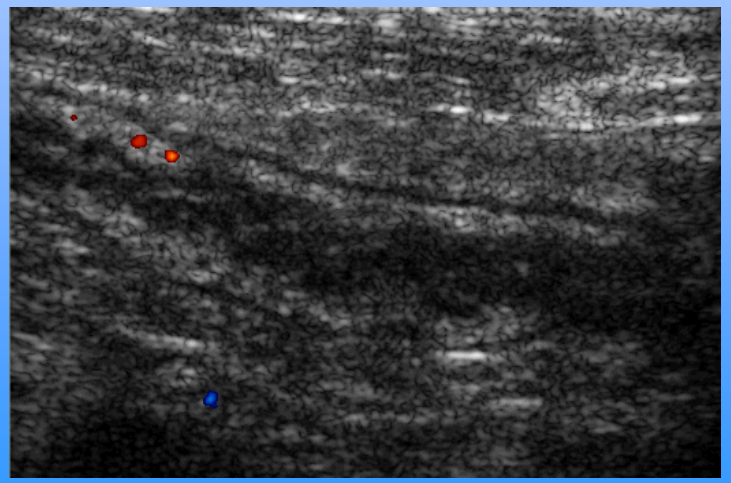


Paroi < 3 mm

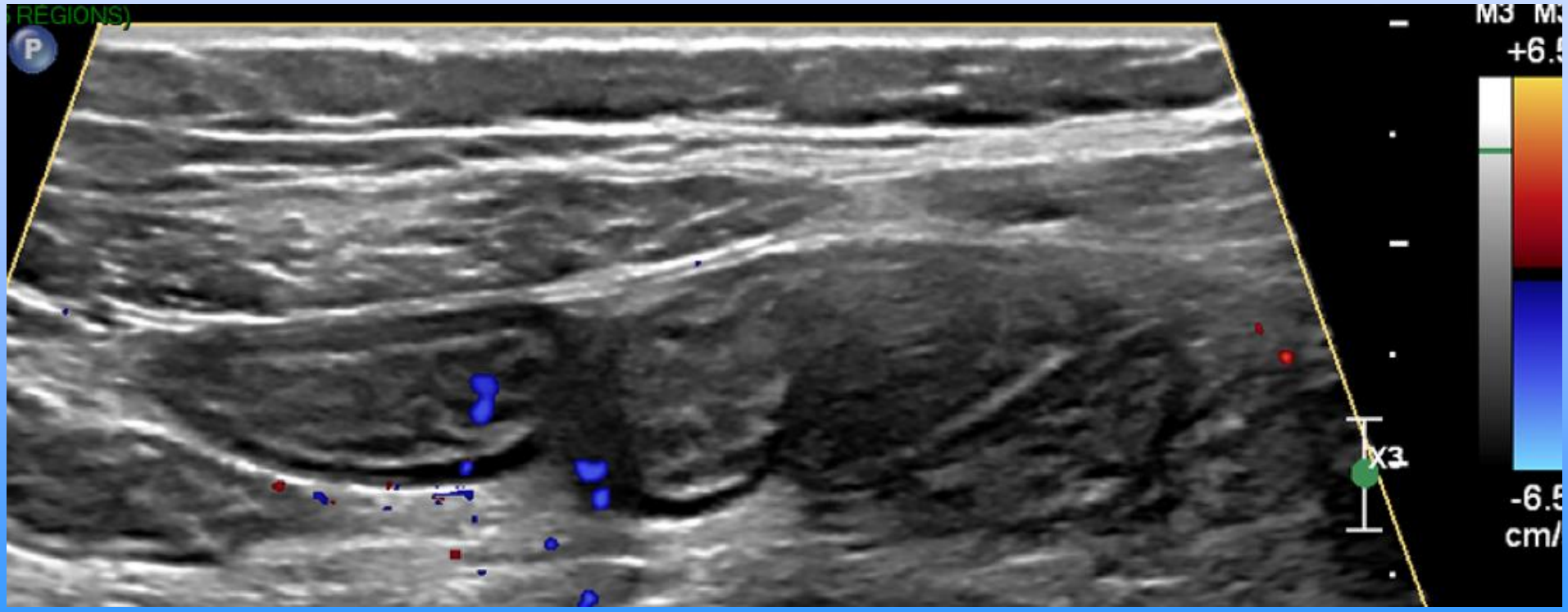


Stratification



Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement



Analyse des parois du grêle :

- Épaisseur
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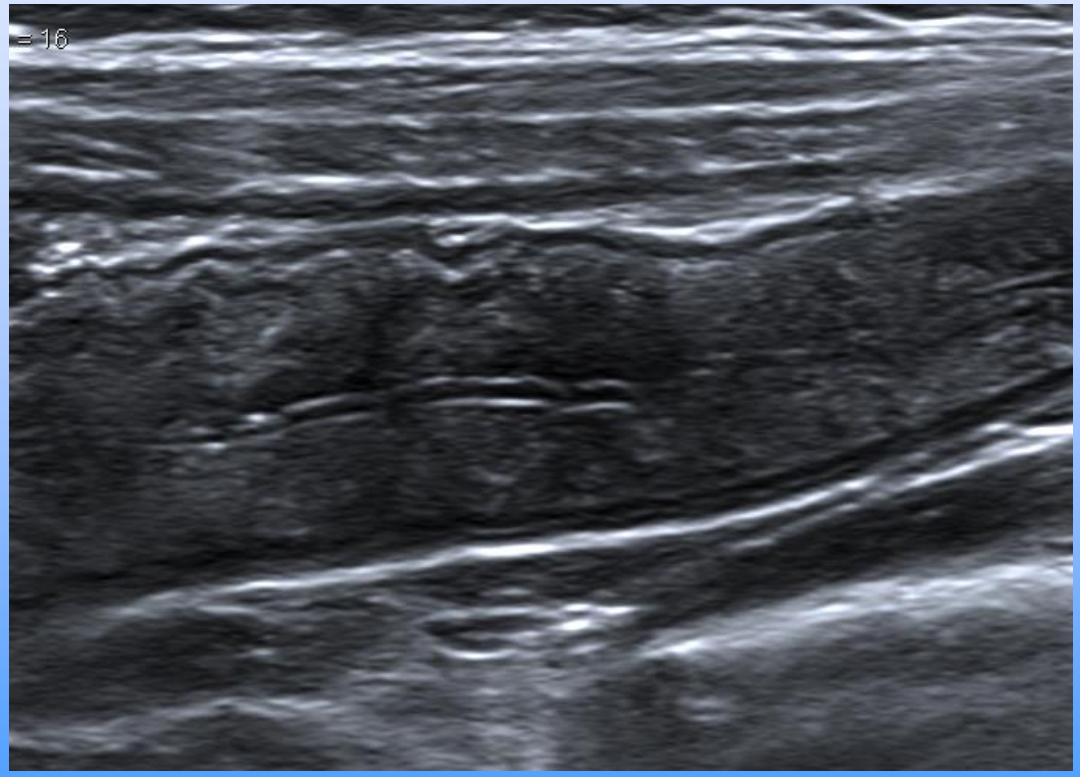
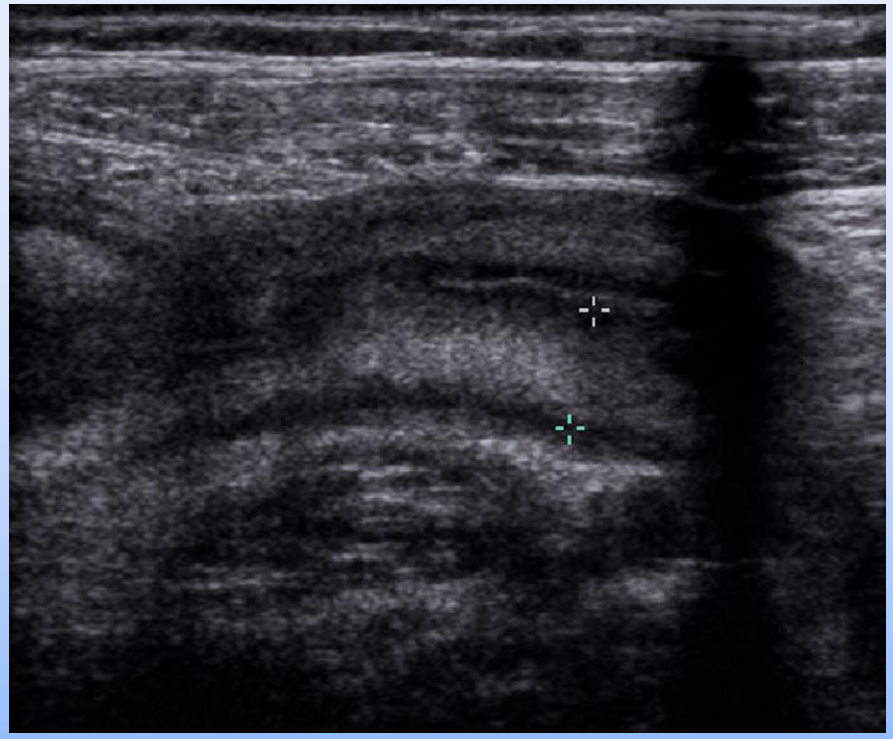
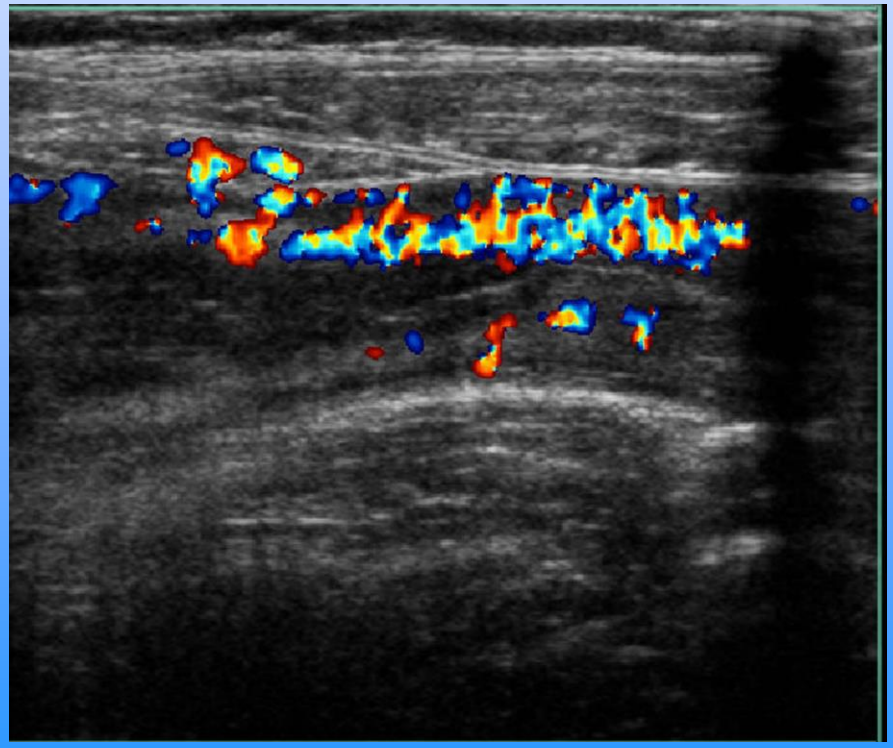


=> ILÉITE TERMINALE

- simple
- Inflammatoire
- Néoplasique





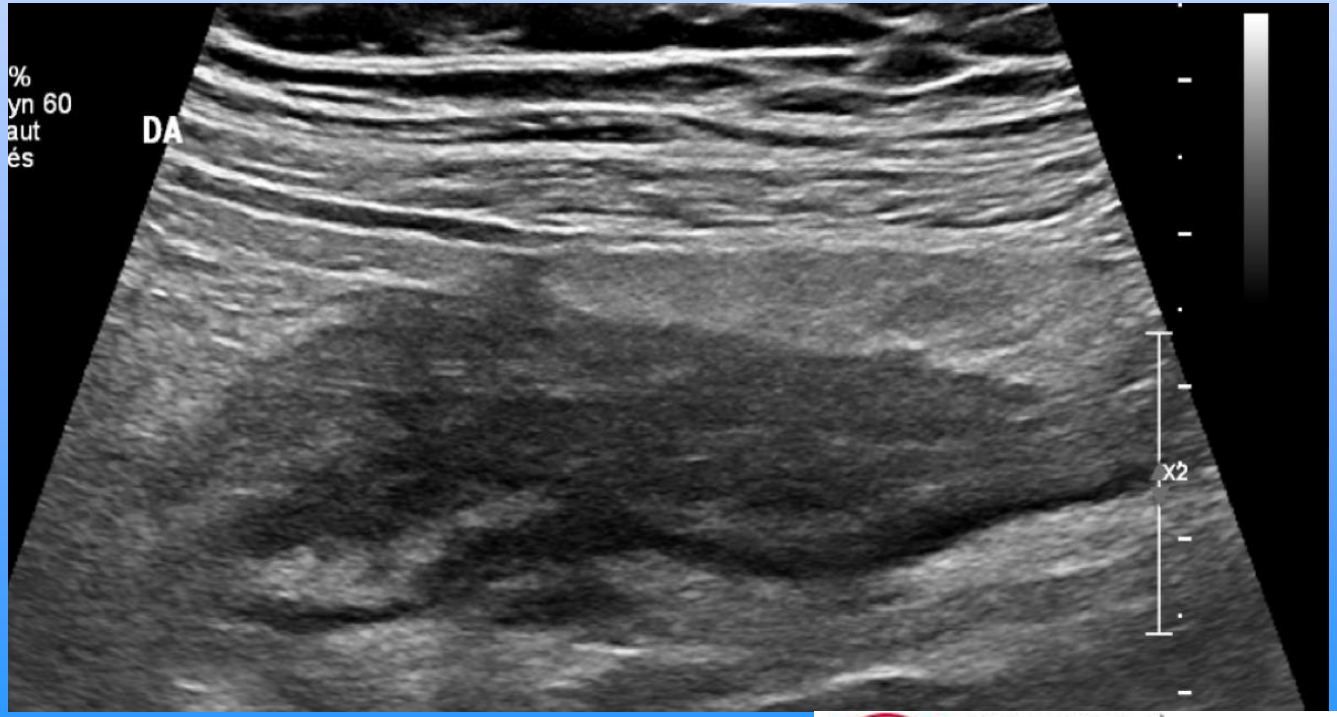
Iléite terminale

Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement

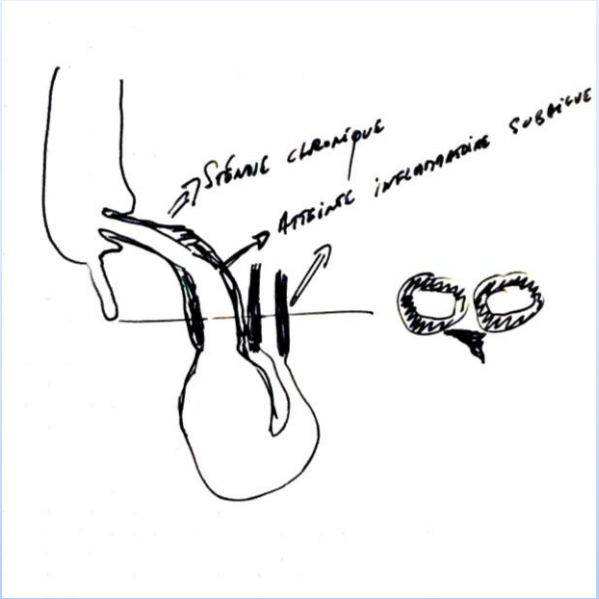
=> ILÉITE TERMINALE

- simple
- Inflammatoire
- Néoplasique



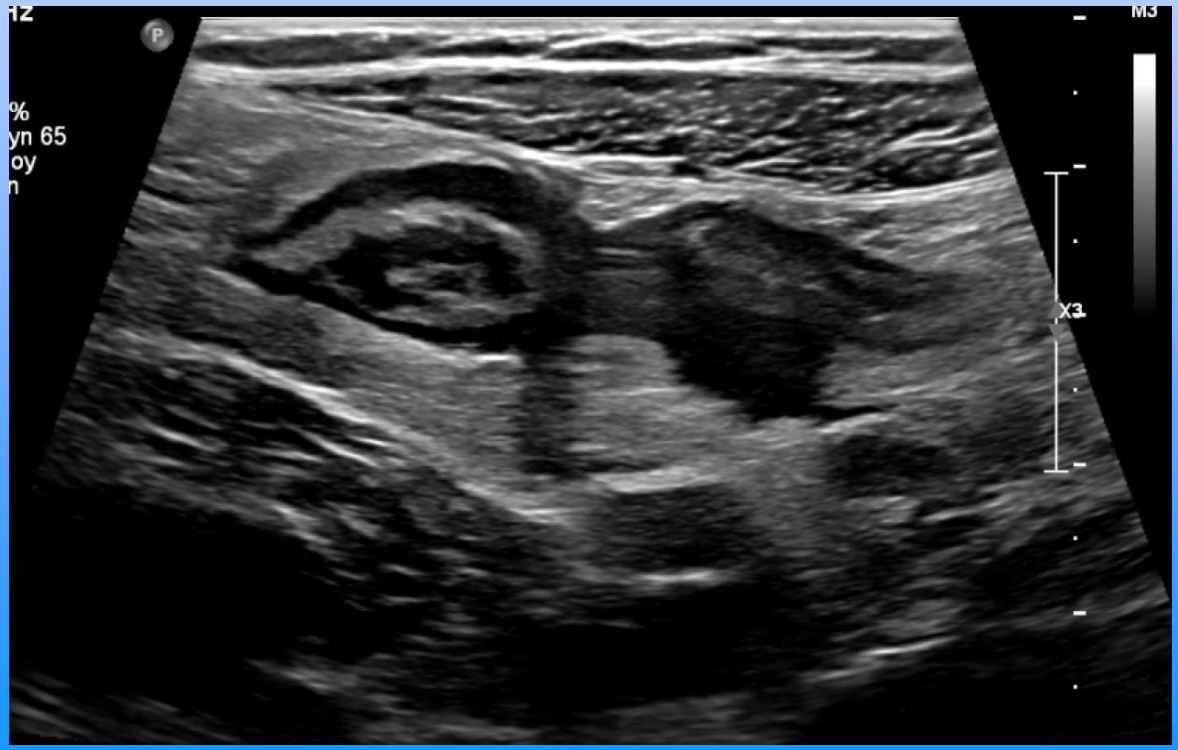
Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement



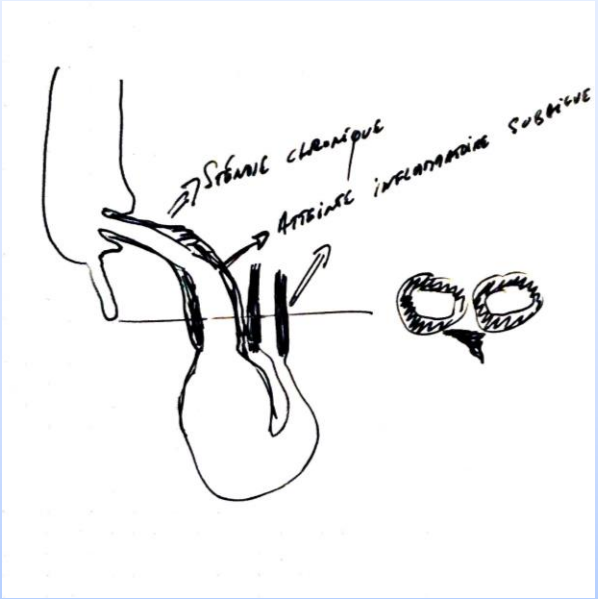
=> ILÉITE TERMINALE

- simple
- Inflammatoire
- Néoplasique



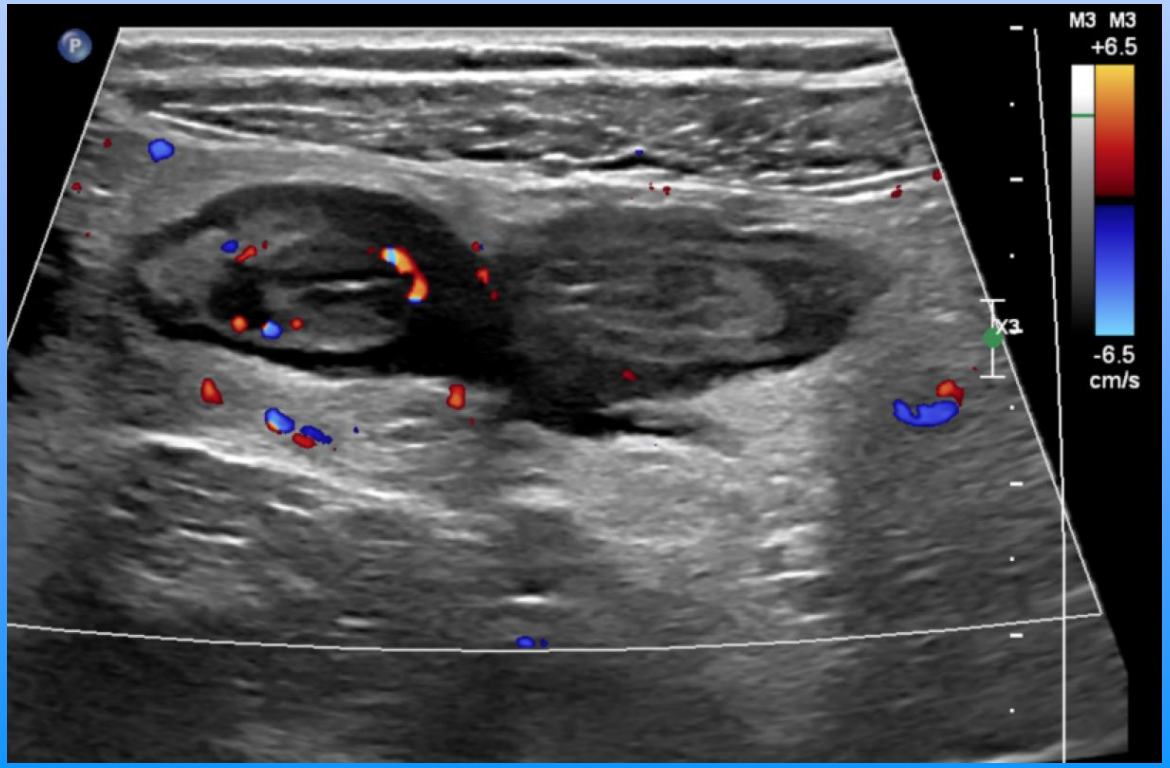
Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement



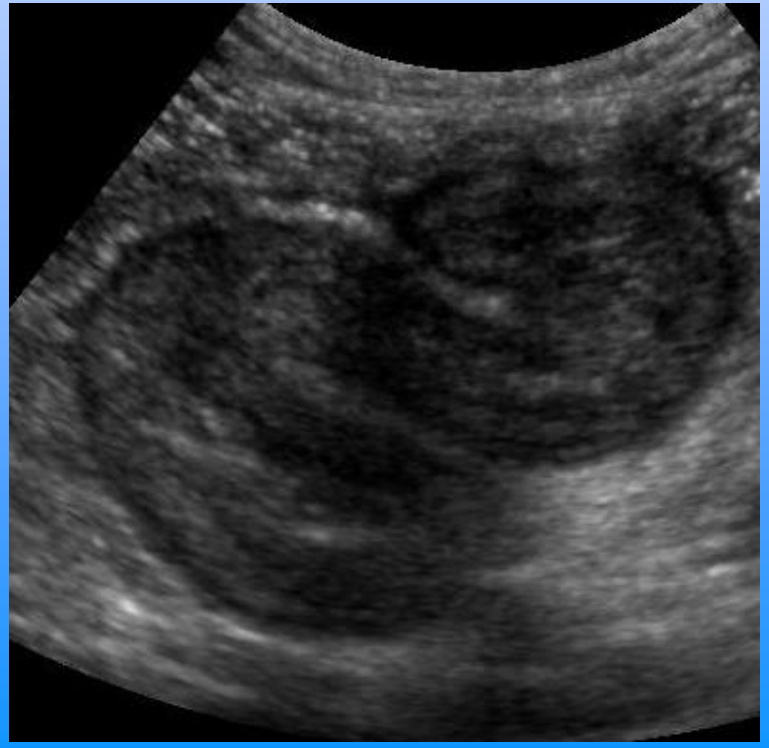
=> ILÉITE TERMINALE

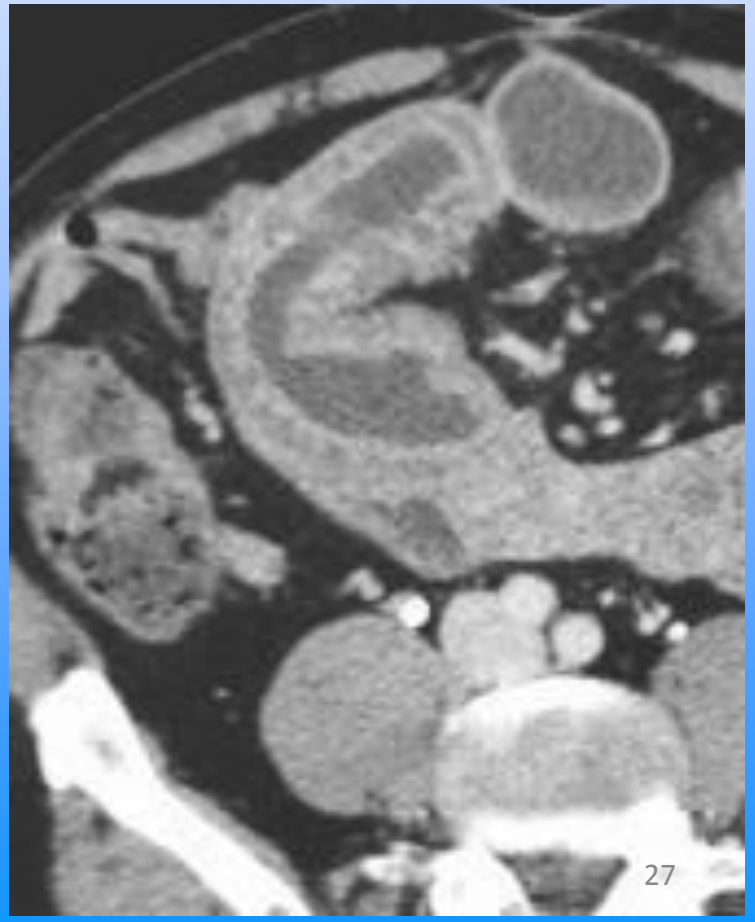
- simple
- Inflammatoire
- Néoplasique

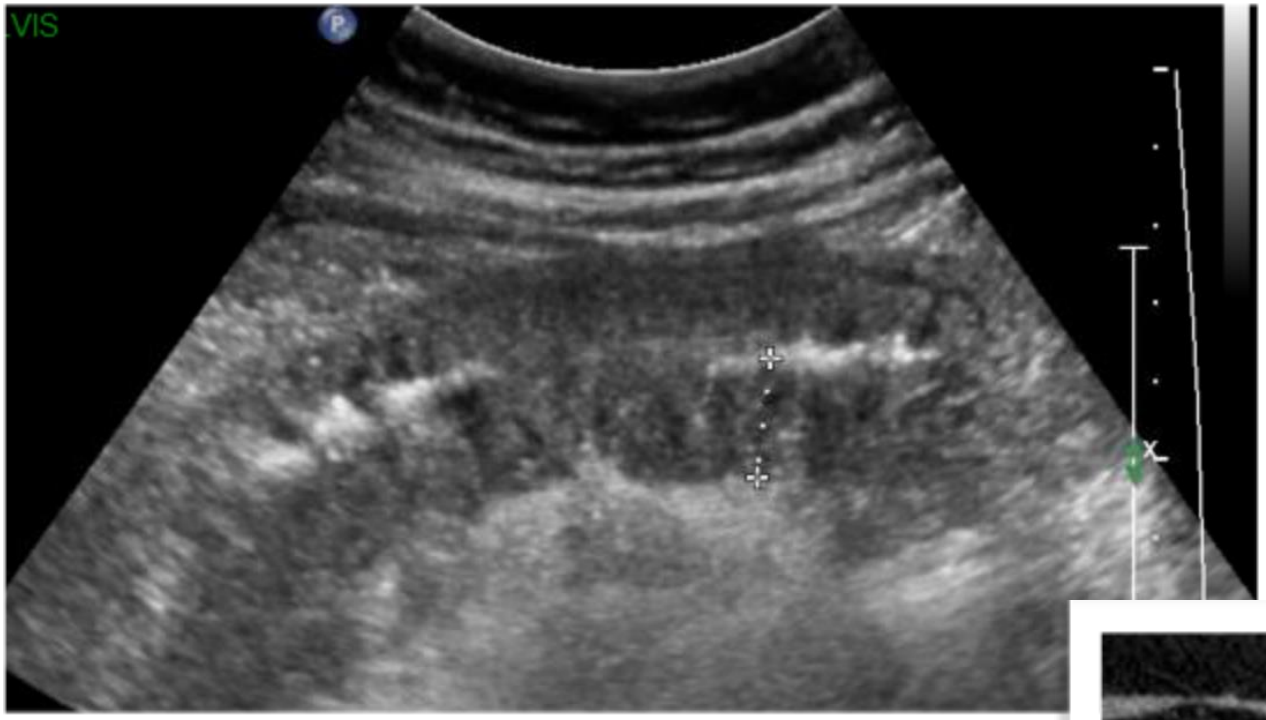


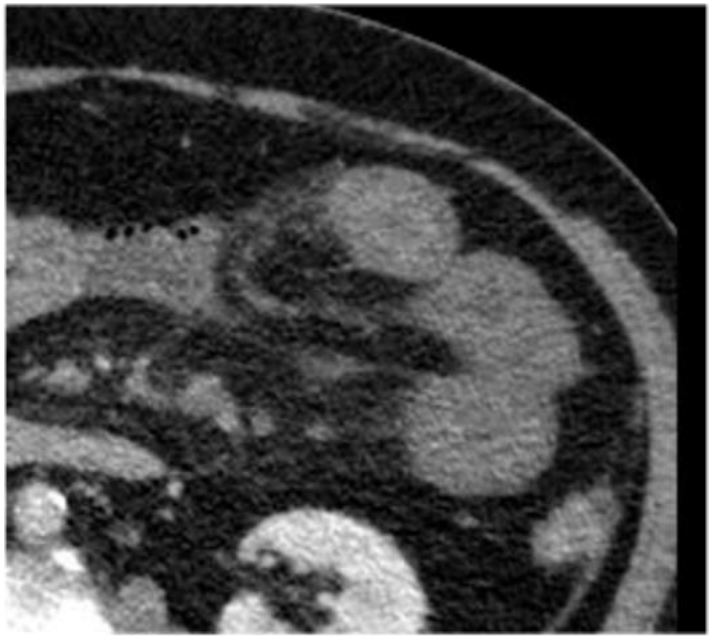
Analyse des parois du grêle :
- Épaisseur
- Stratification
- Vascularisation
- Environnement

=> ILÉITE - entérite
- simple
- Inflammatoire
- Ischémique
- Néoplasique



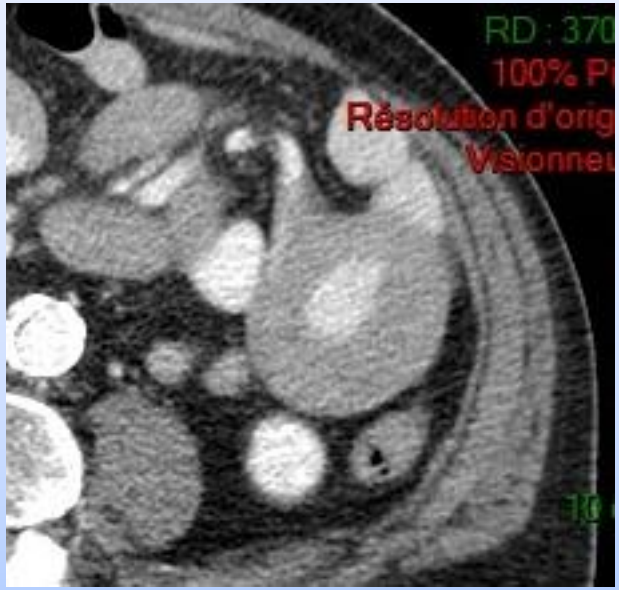






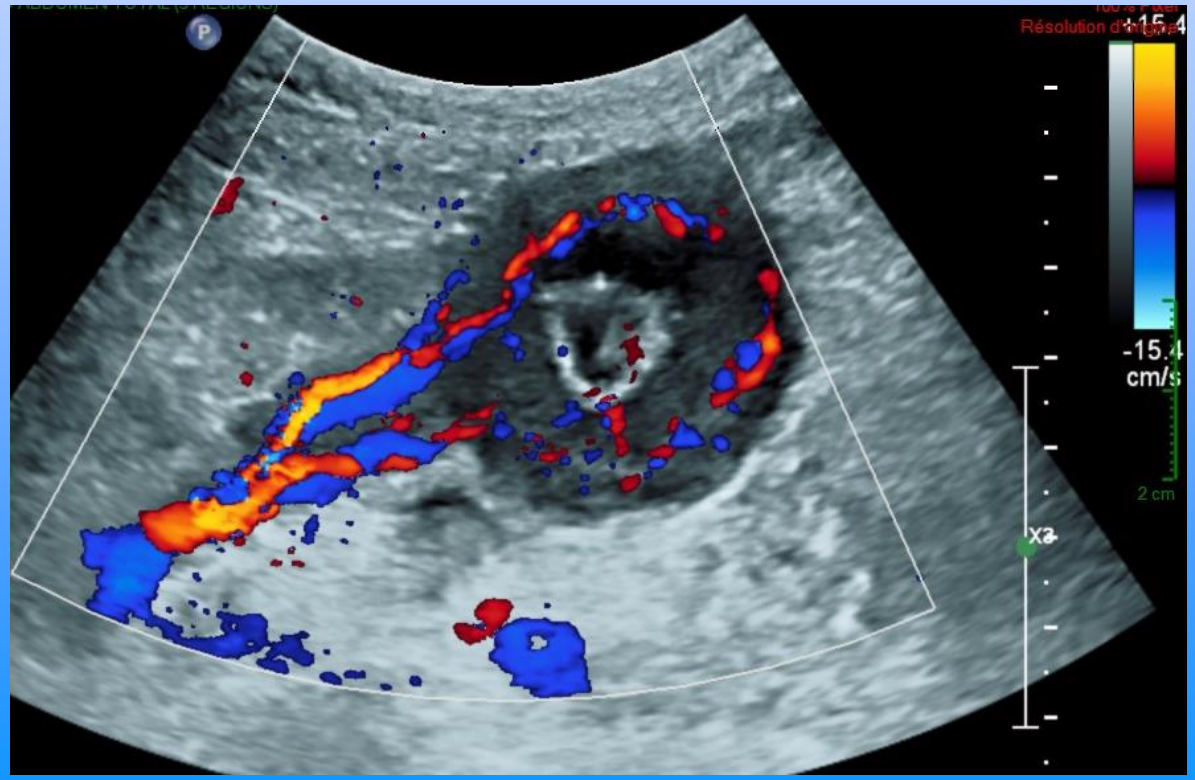
Analyse des parois du grêle :

- Épaisseur
- Stratification
- Vascularisation
- Environnement



=> (ILÉITE)- entérite

- simple
- Inflammatoire
- Ischémique
- Néoplasique



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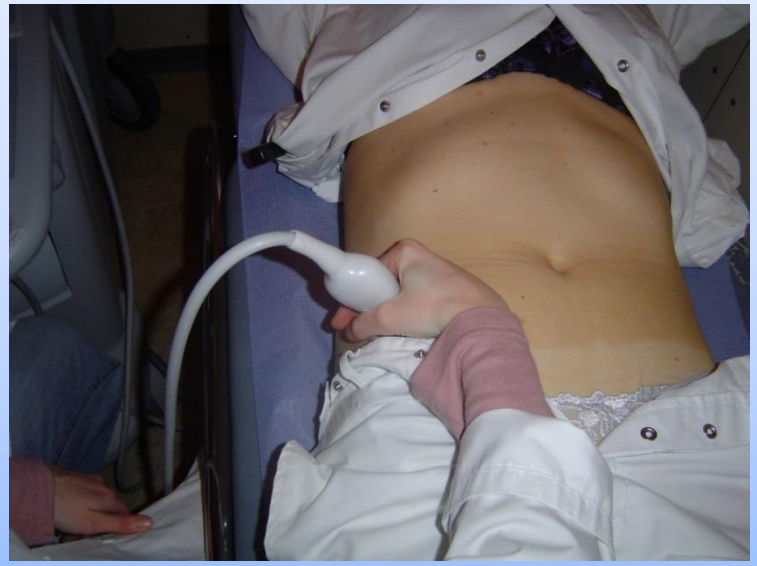
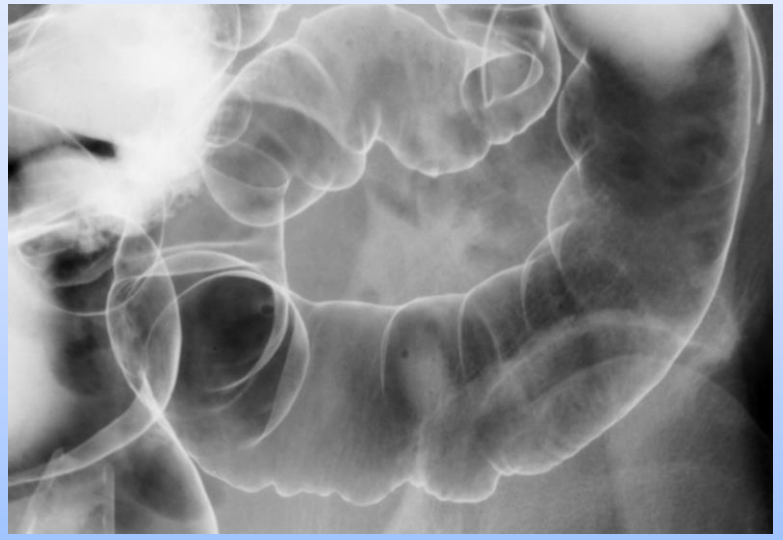
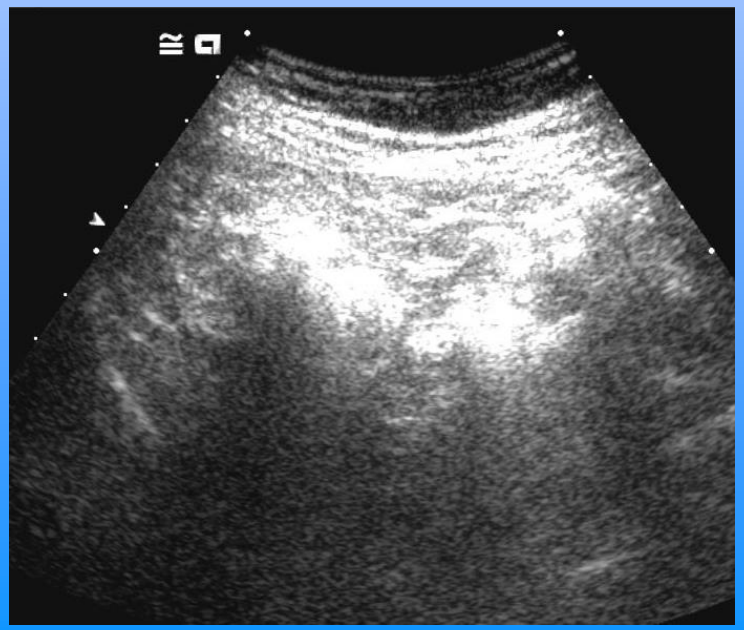
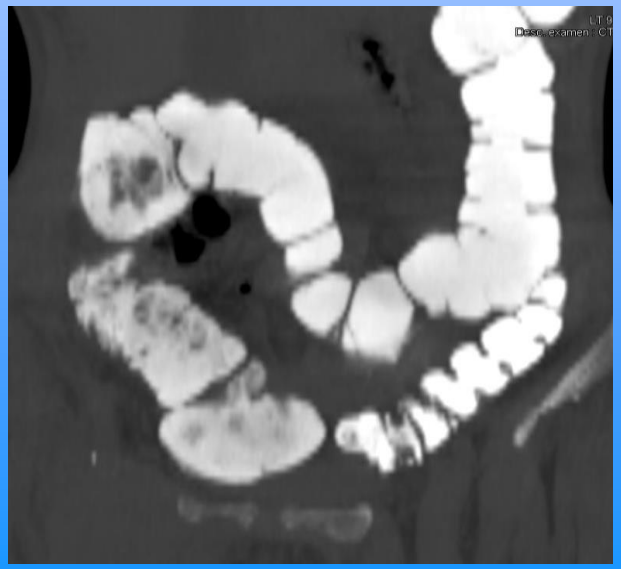
MEMBRE DE USPC Université Sorbonne Paris Cité

Le colon normal

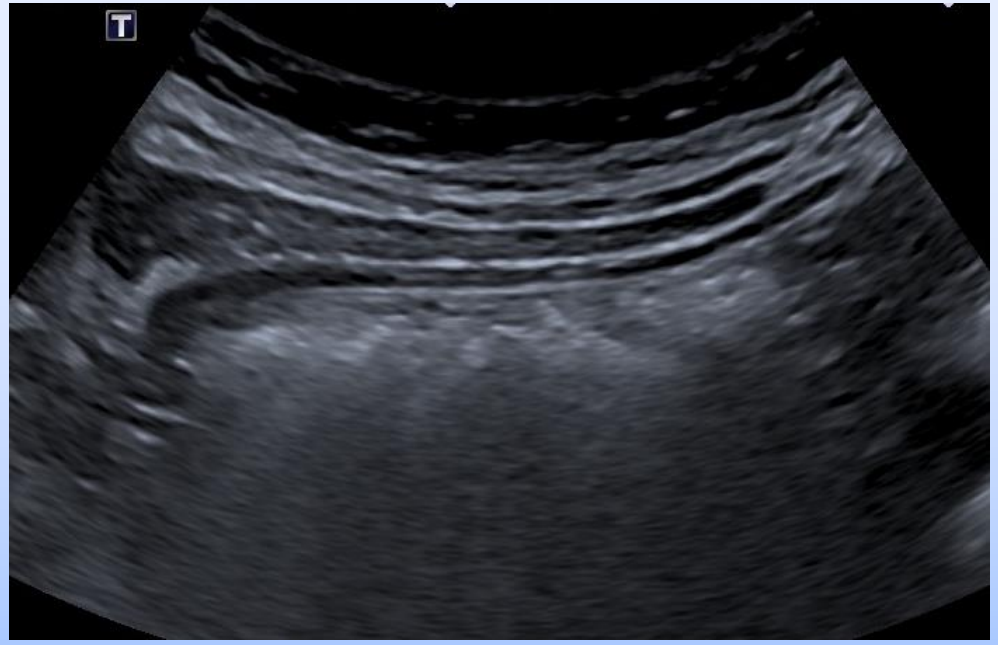




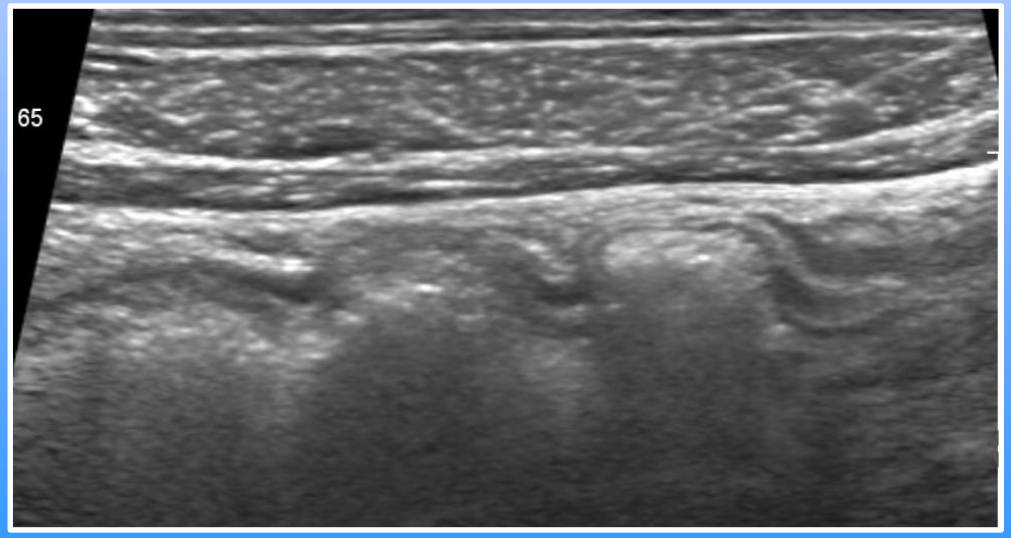




Colon



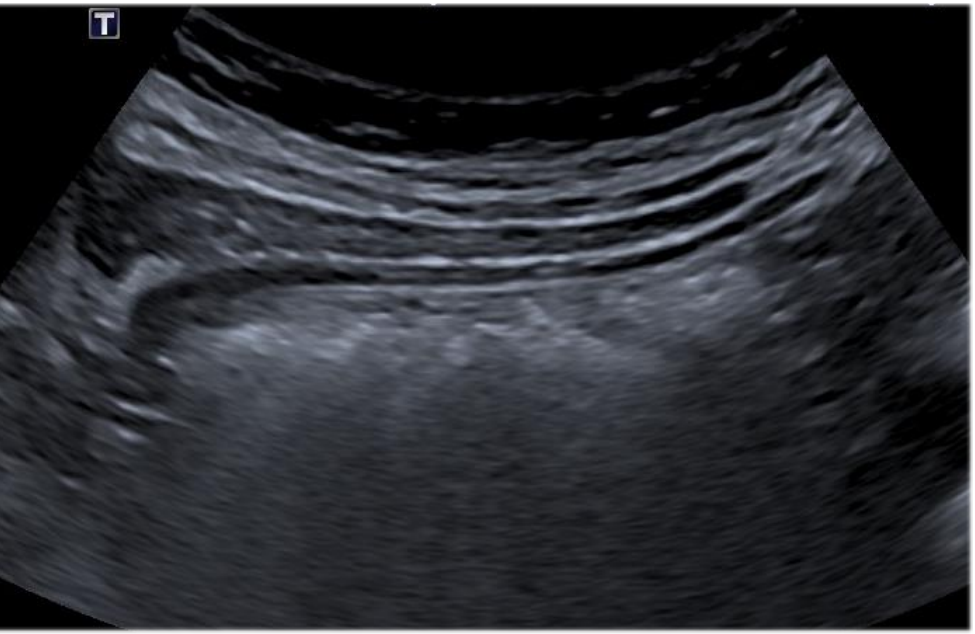
Epaisseur < 5 mm

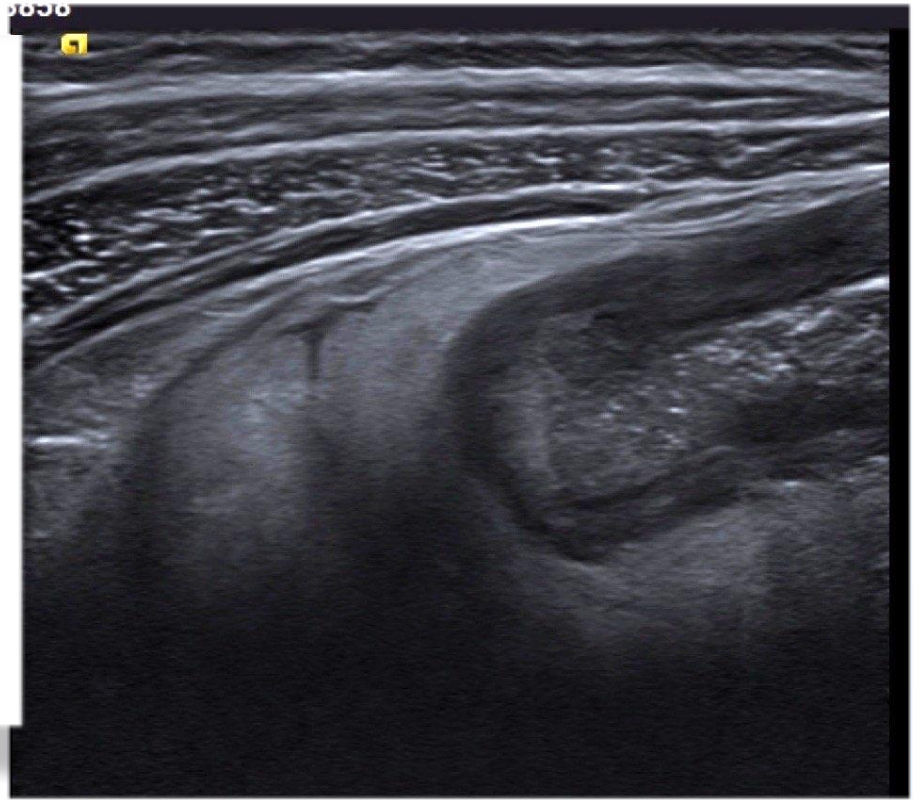


Les haustrations

Environnement :

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





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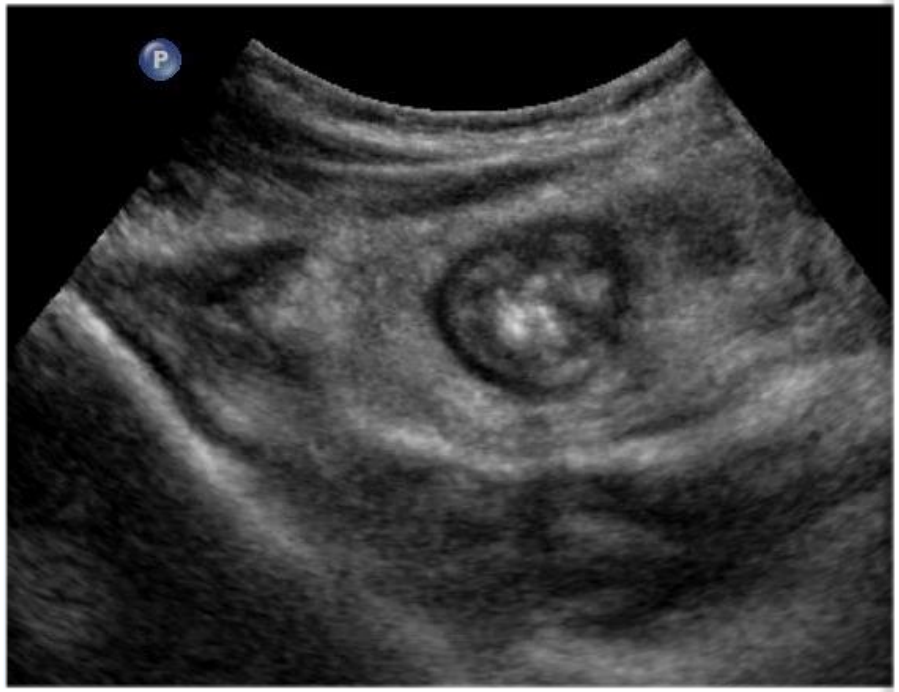
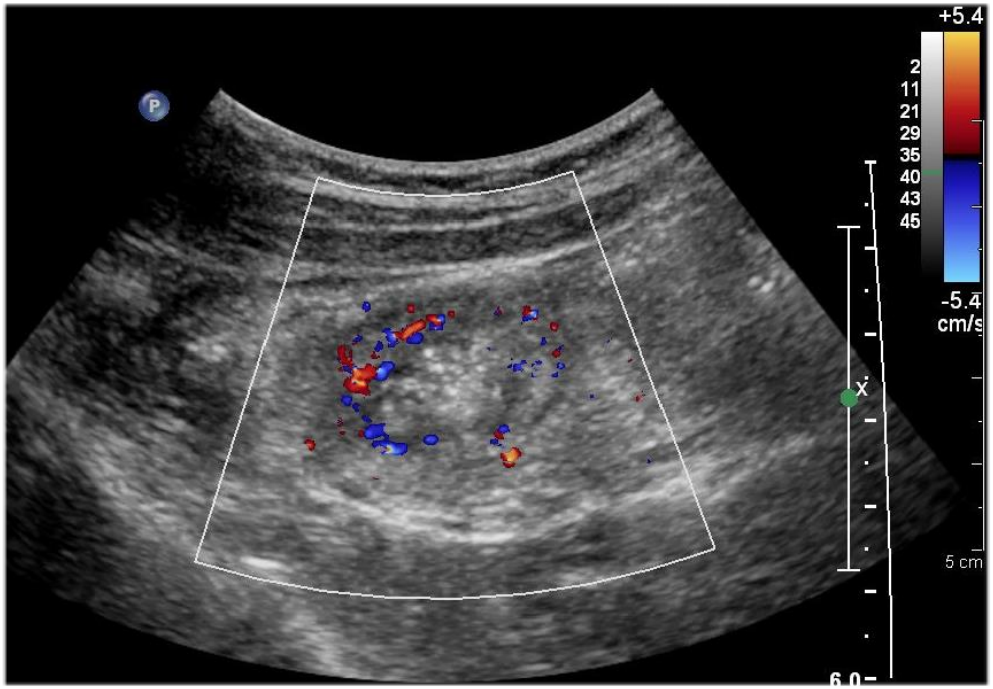
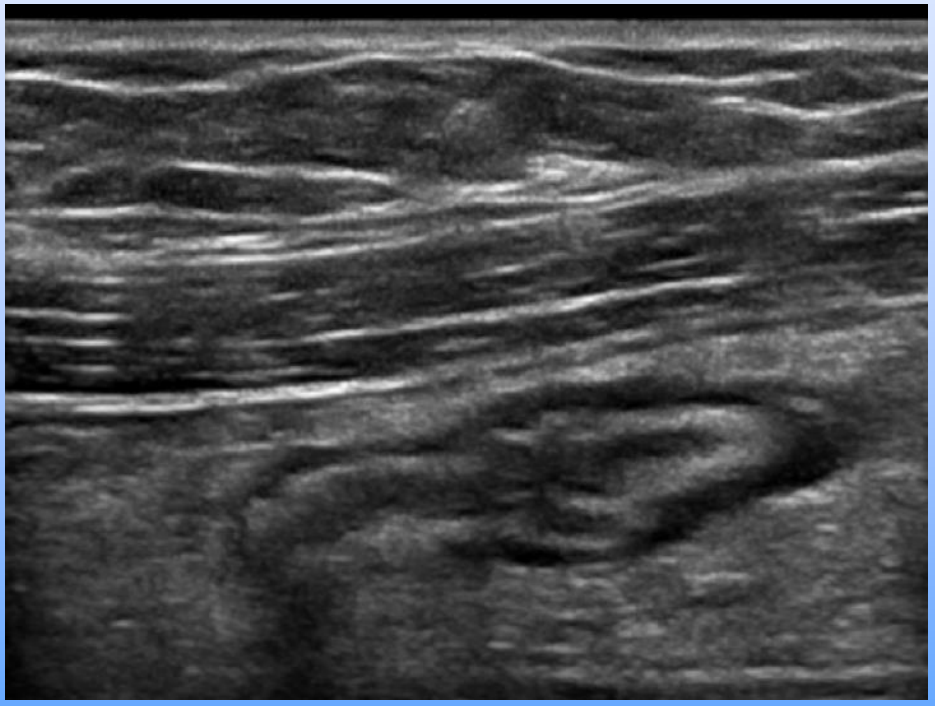
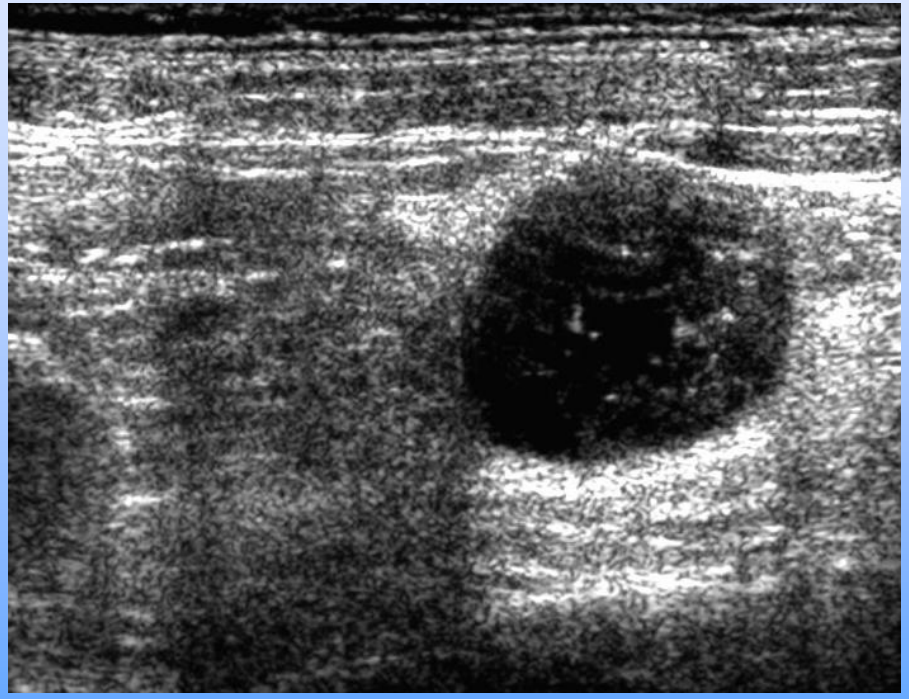




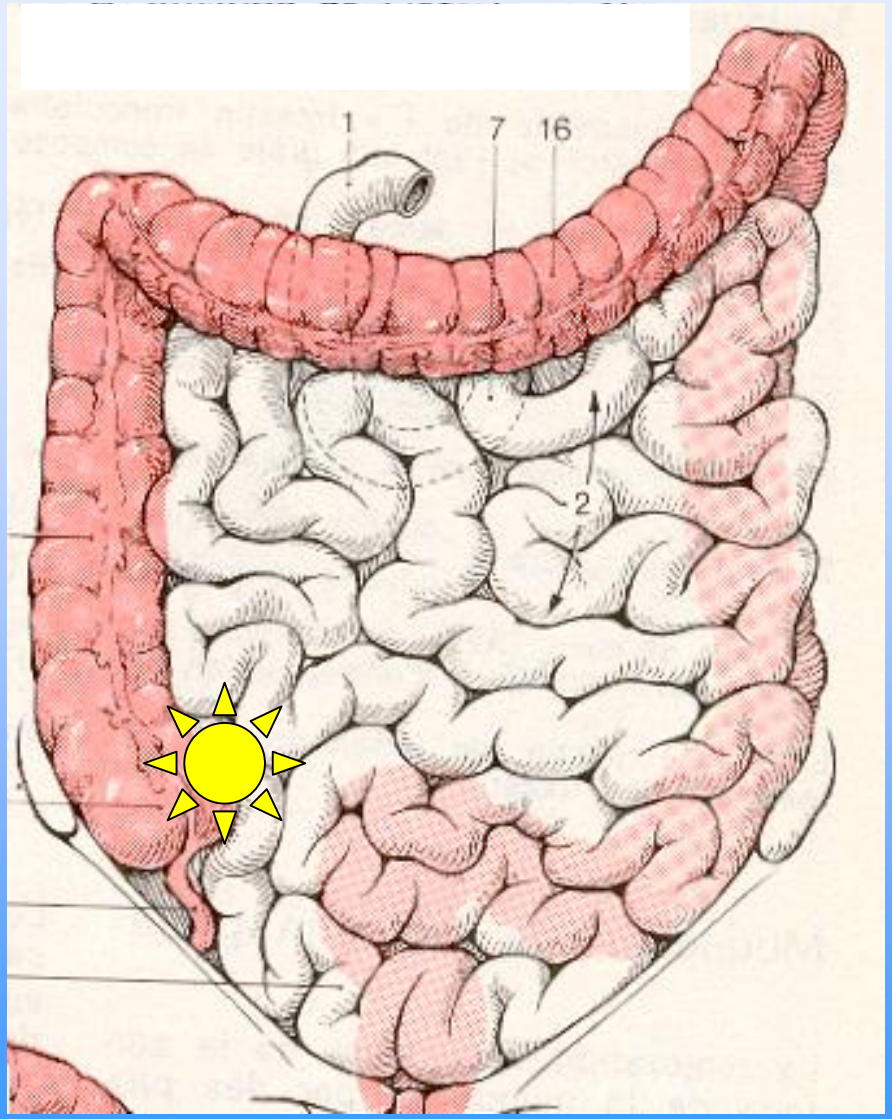
Epaisseur normale < 5 mm

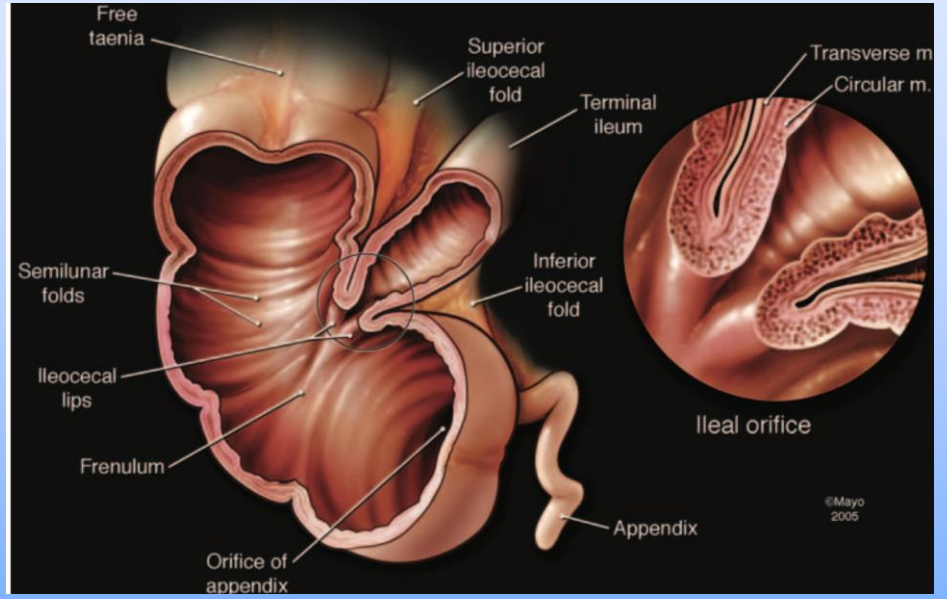
Stratification





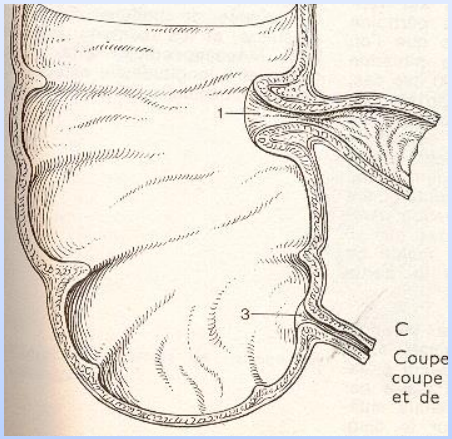
CARREFOUR ILEO COECAL





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 •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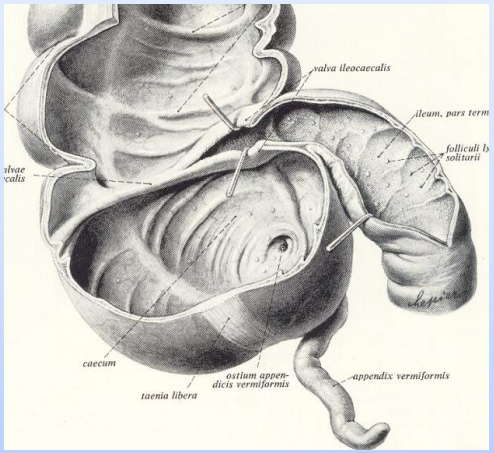
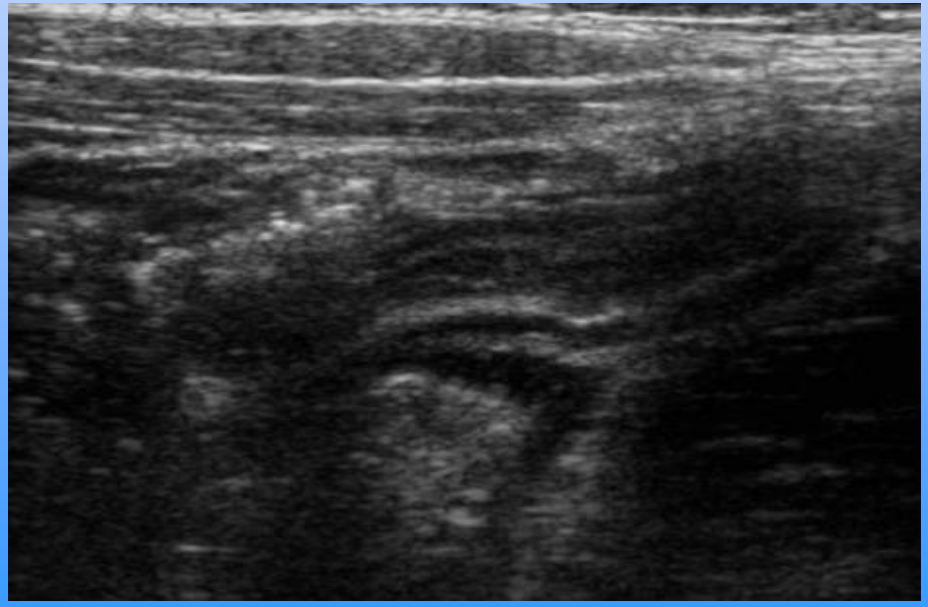
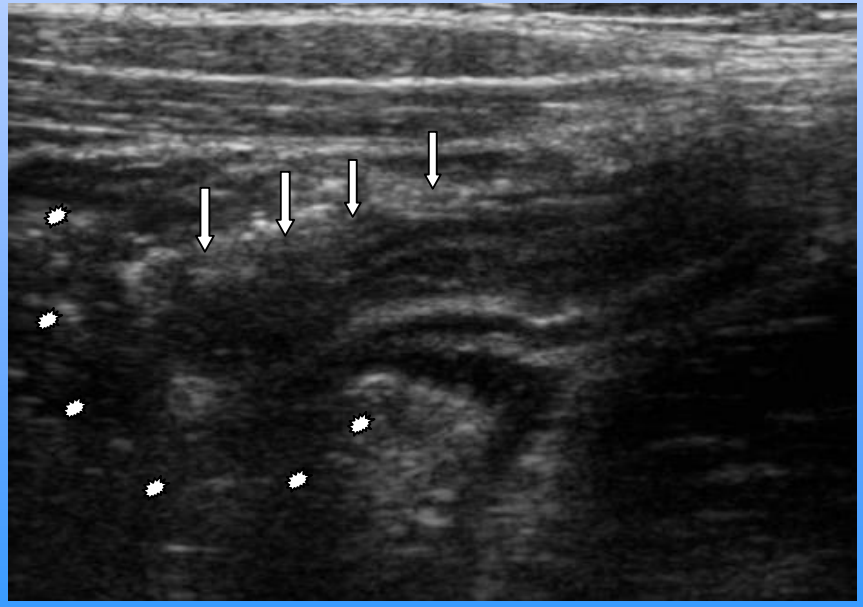
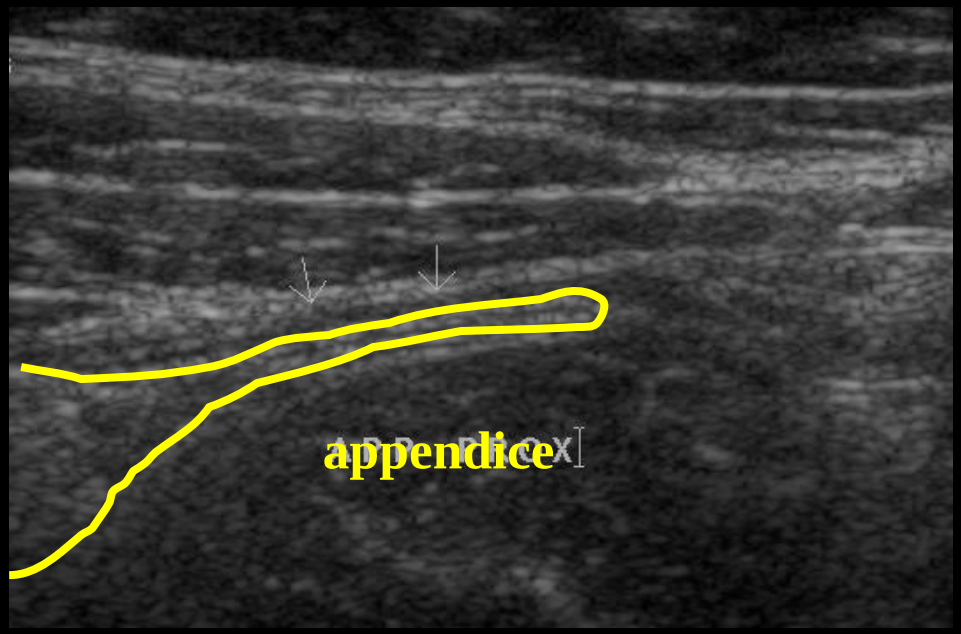
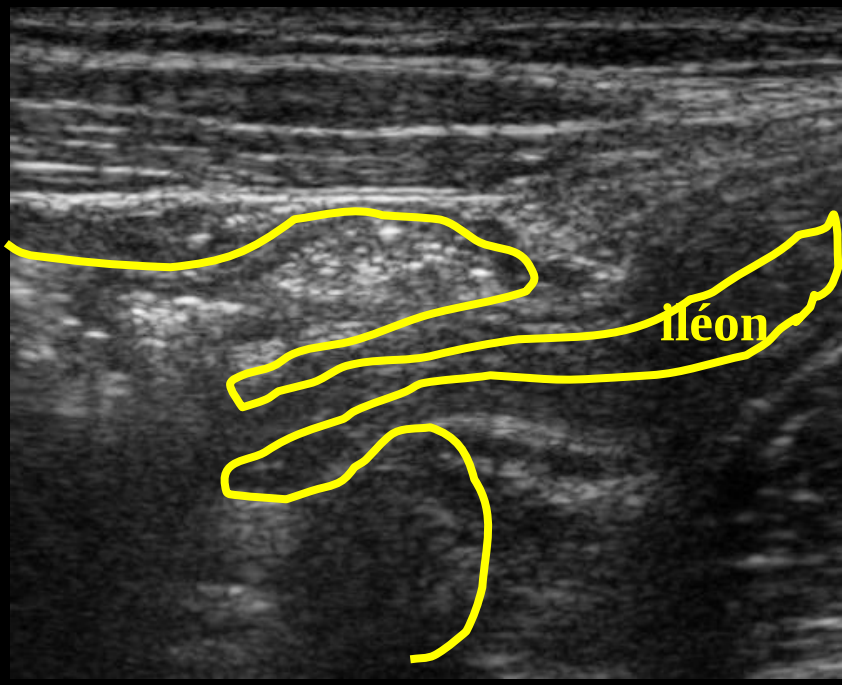

valva ileocaecalis
ileum, pars term
folliculi l
solitarii
caecum
taenia libera
ostium appen-
dicis vermiformis
appendix vermiformis



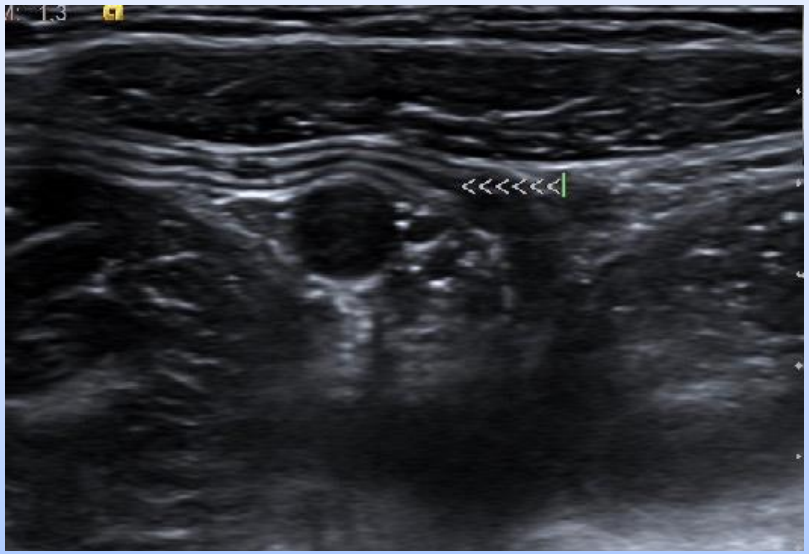


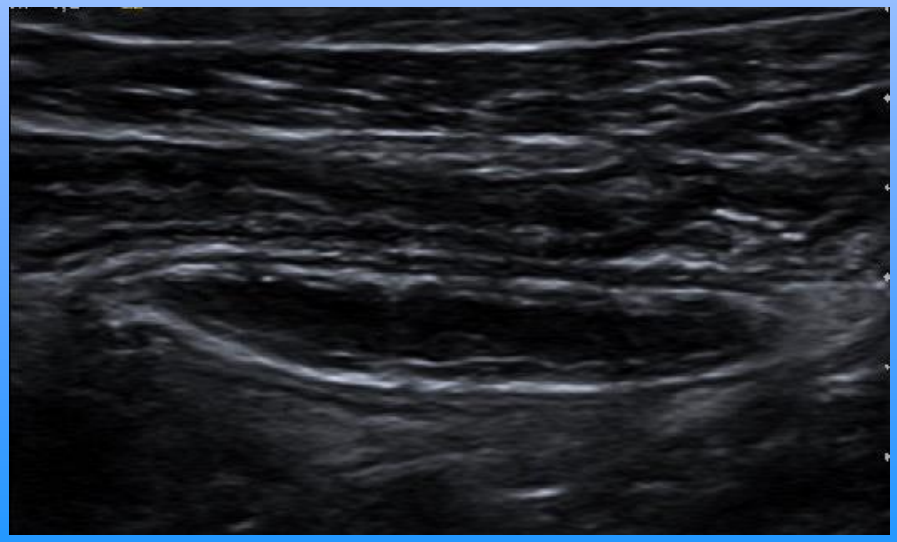

appendice

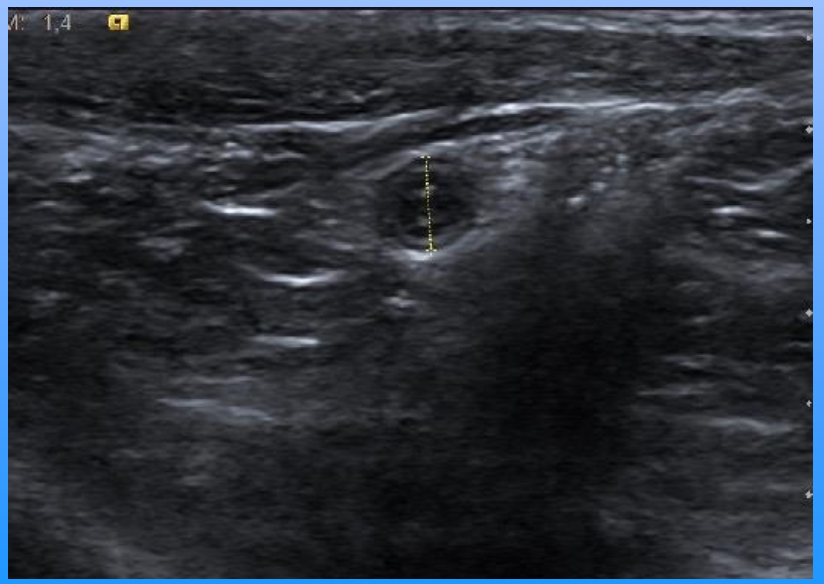

Iléon

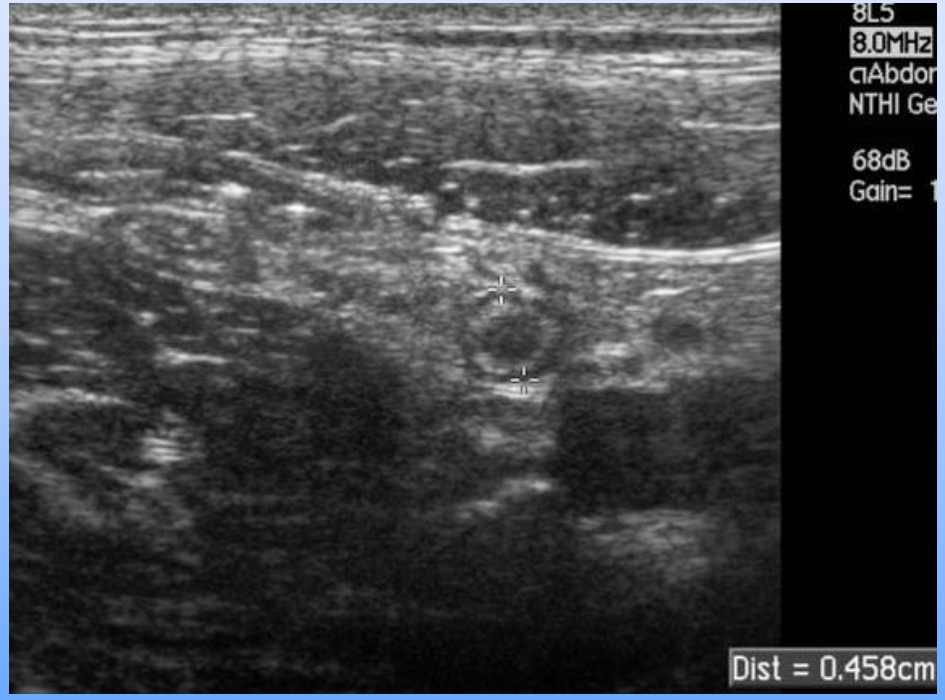
appendice normal

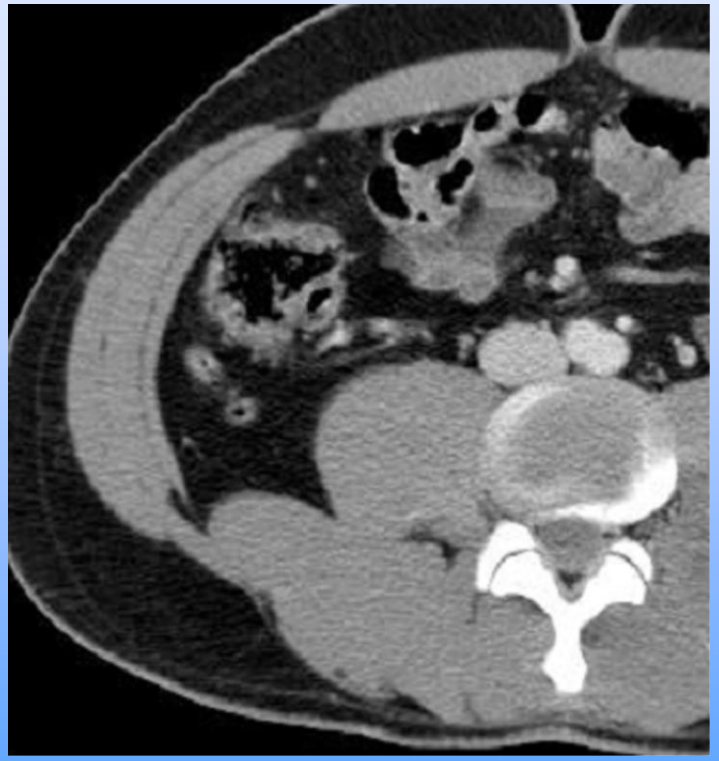
repérer la jonction iléo coecale
tubulaire , borgne
paroi fine
diamètre < 6 mm
compressible
contenu parfois liquidien ,
stercolithe



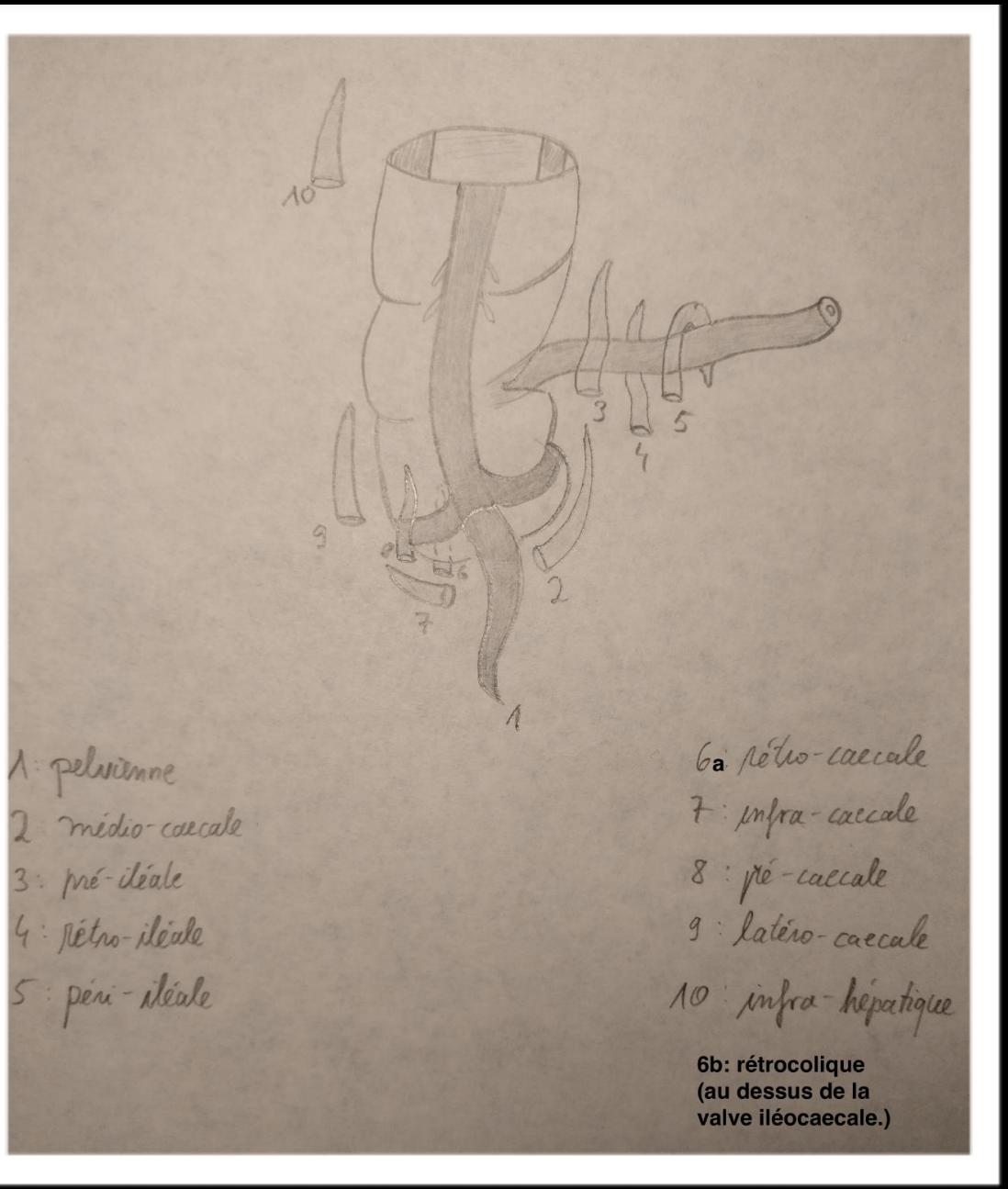


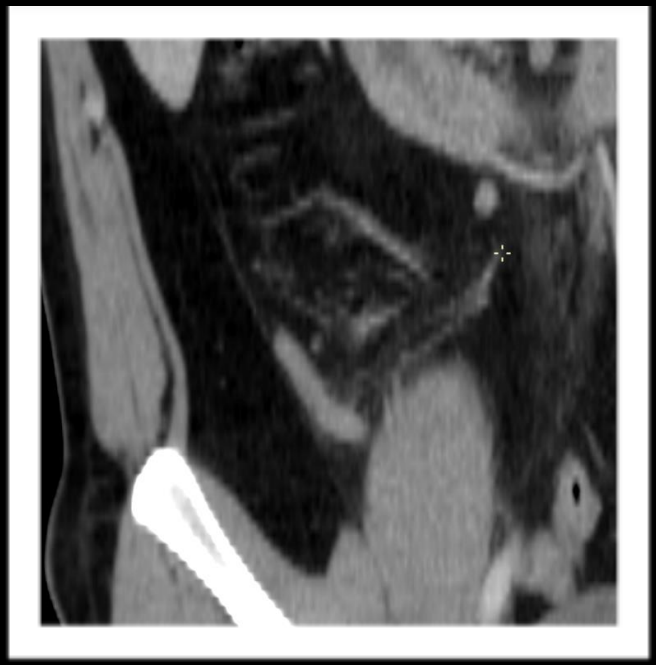






APPENDICE NORMAL US ET CT

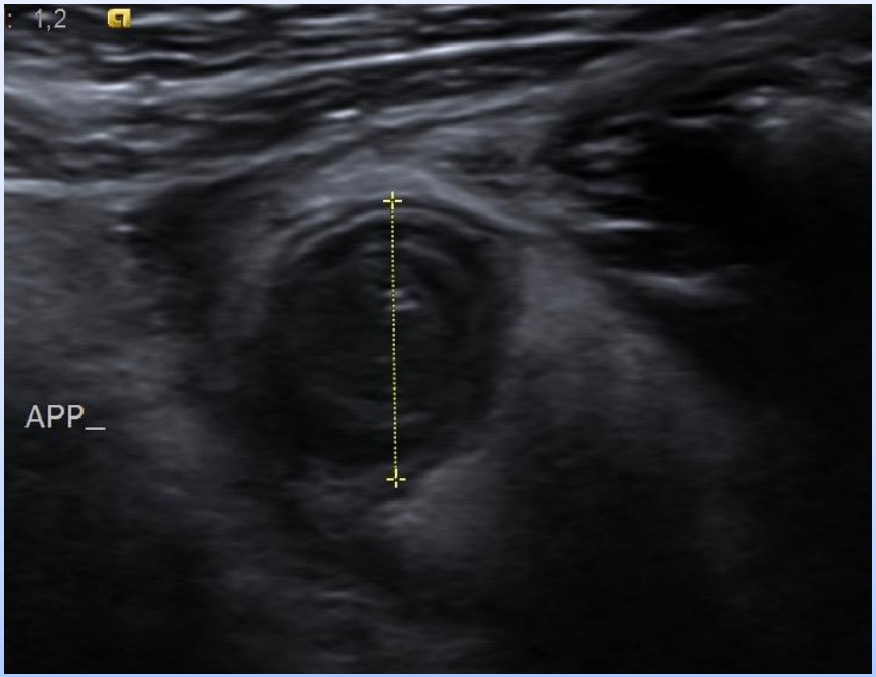


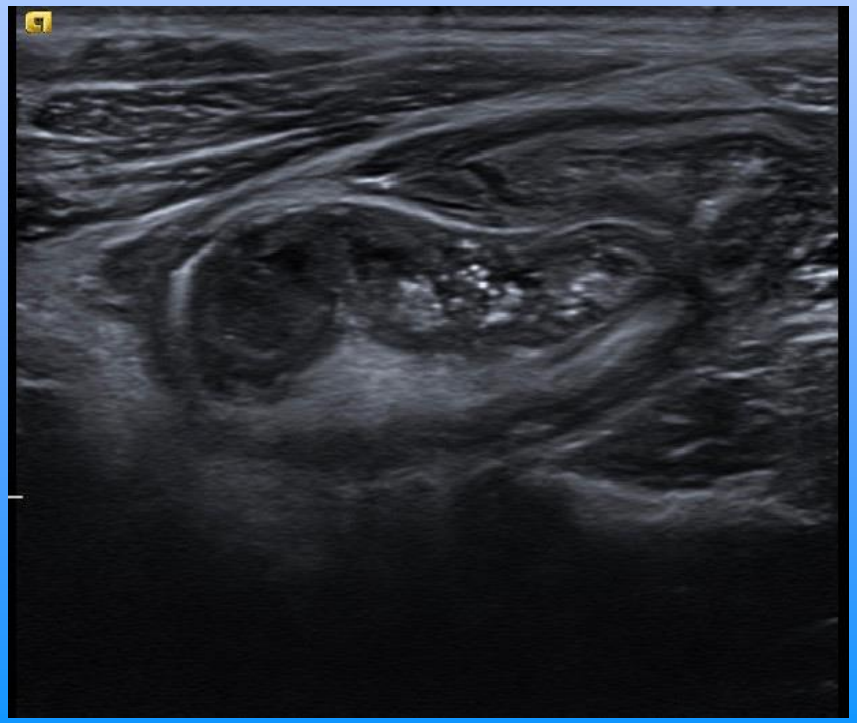


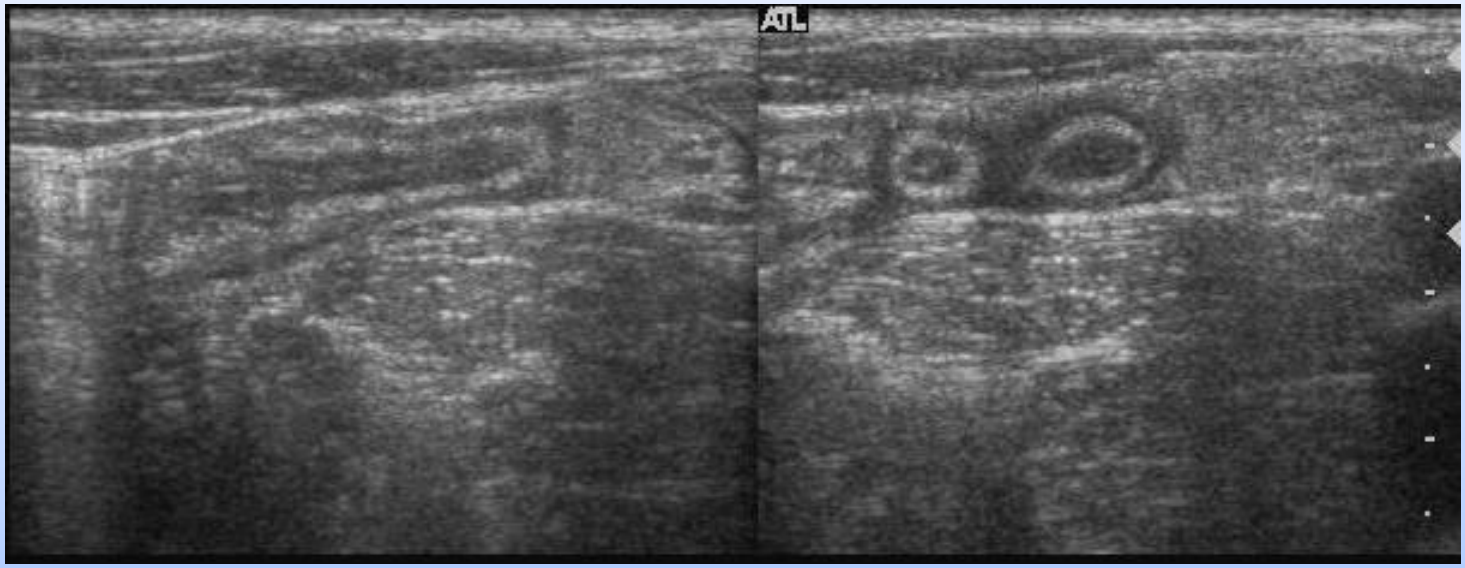
Topographies appendiculaires, Dr Binsfeld, 2017

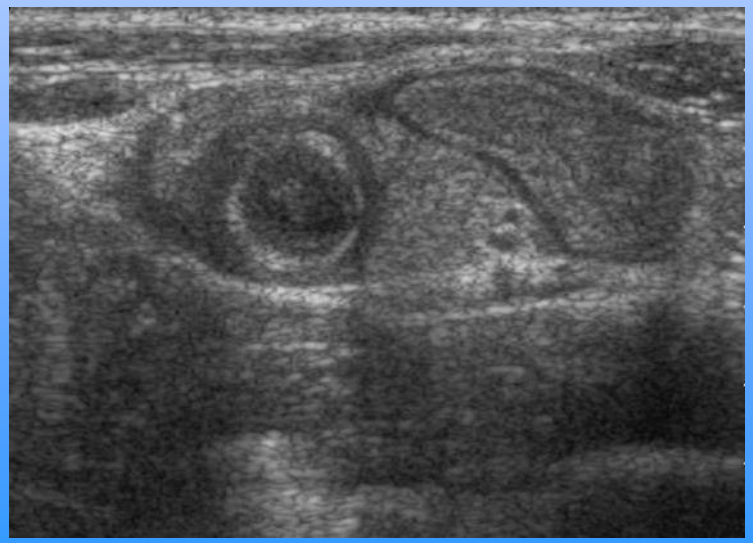
appendicite

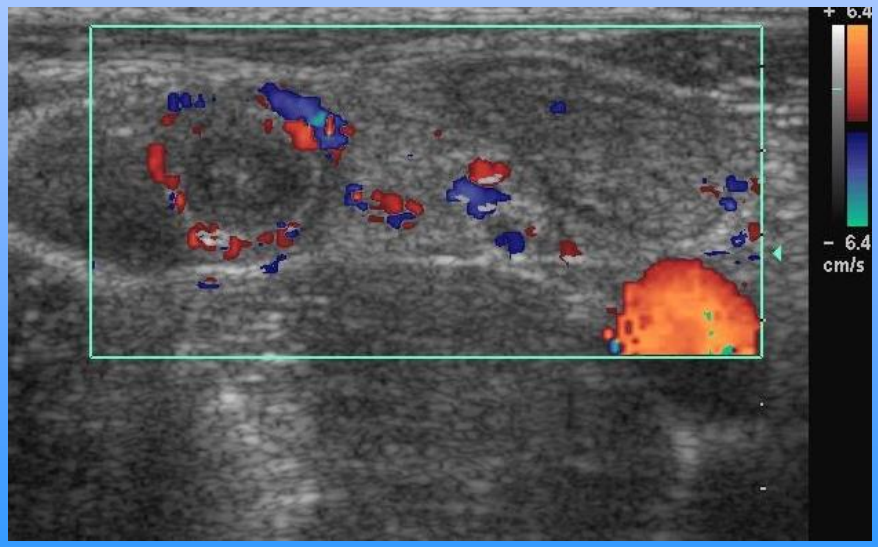
épaississement pariétal
augmentation de calibre >= 6mm
incompressible
épanchement
adénopathies satellites
infiltration de la graisse

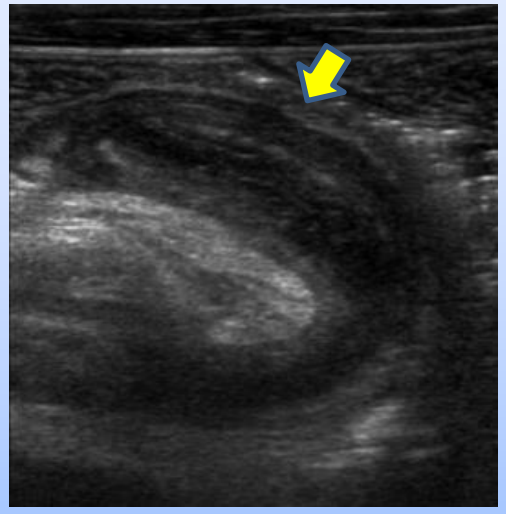


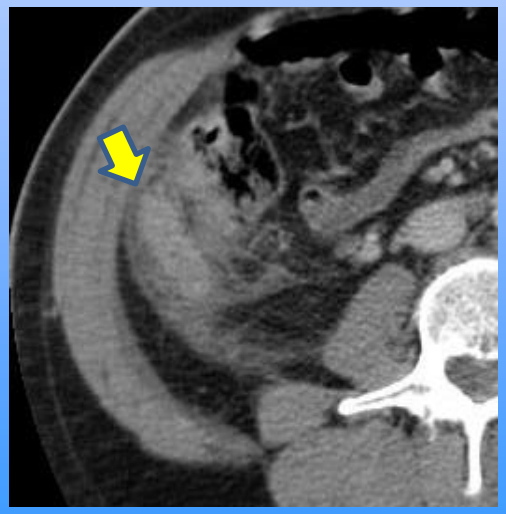


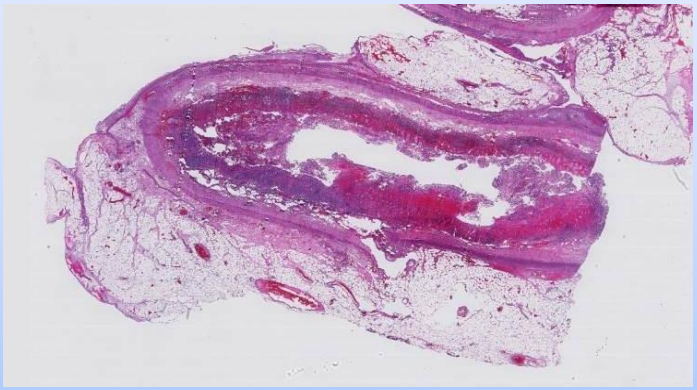


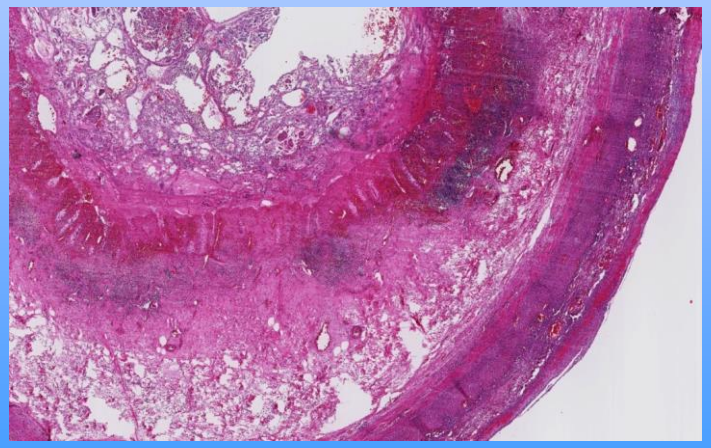




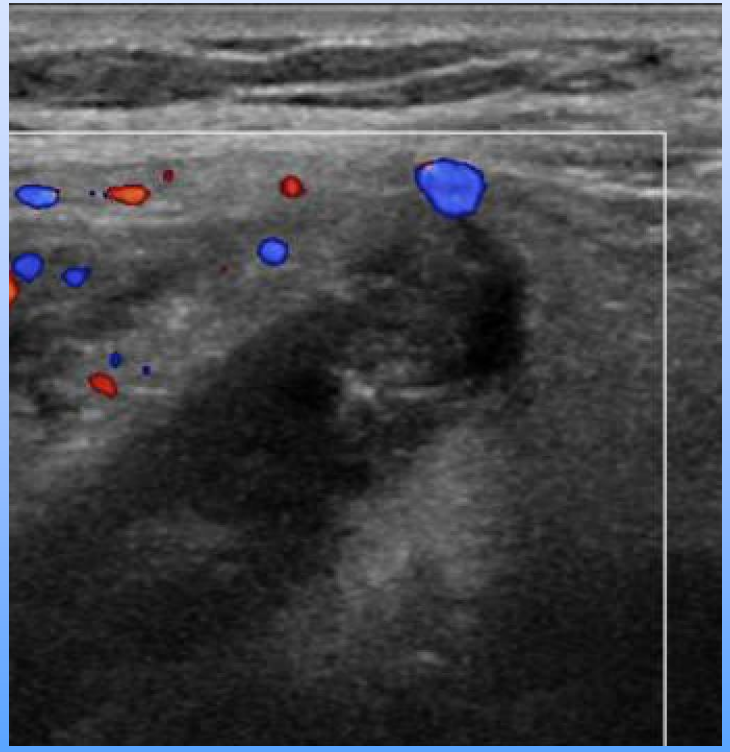


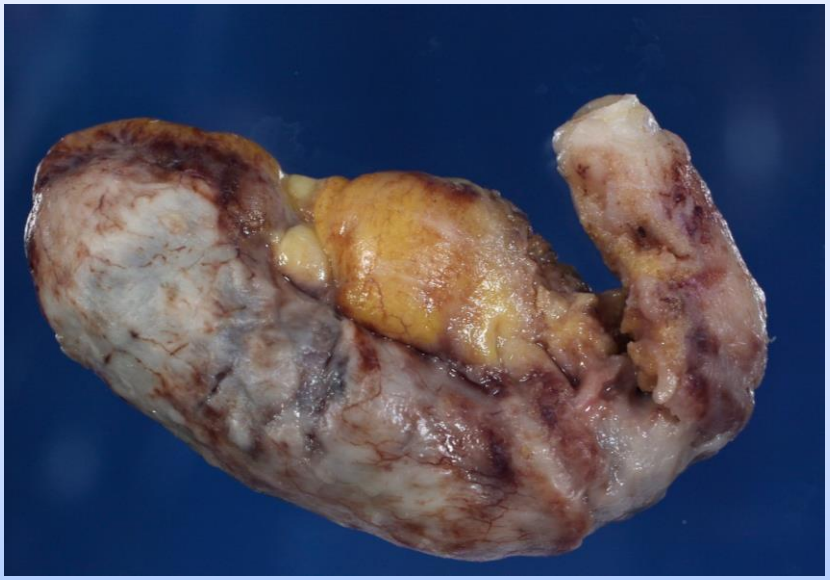


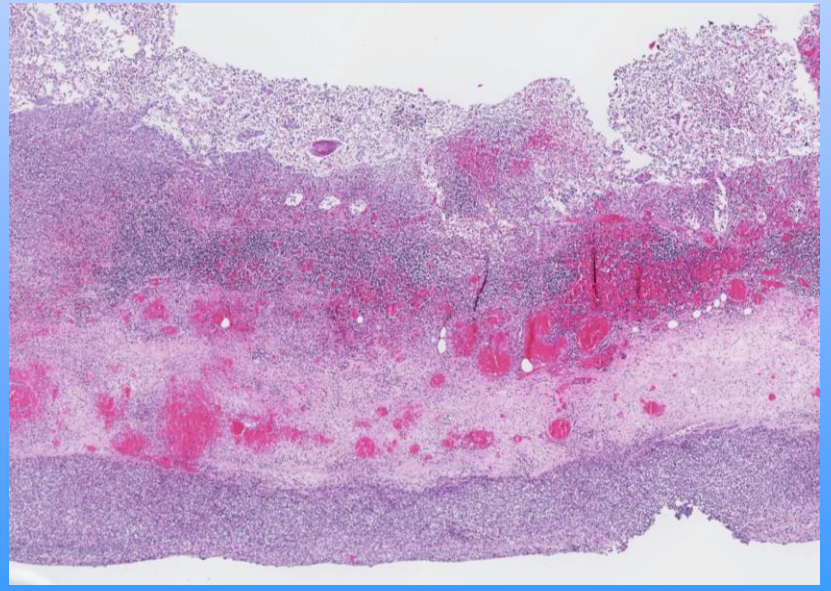




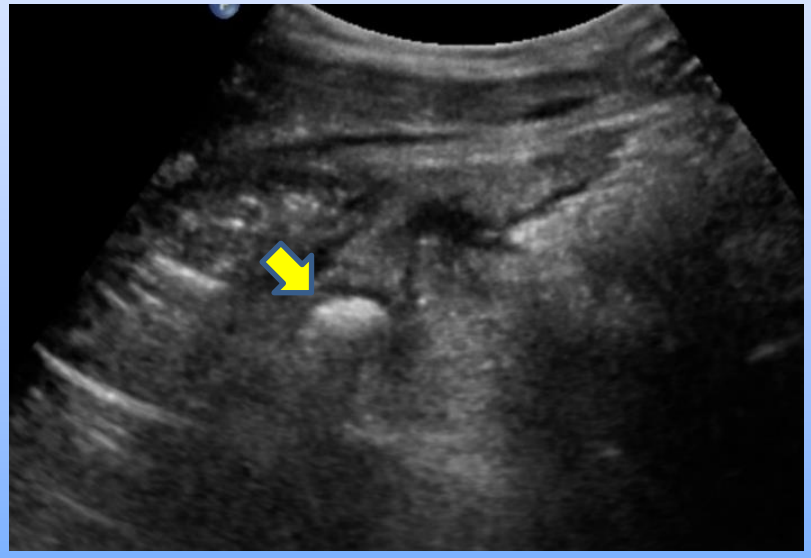
Appendicite aiguë : correspondance entre l'aspect échographique, le CT et l'histologie. L'appendice est épaissi, la graisse péricolique est infiltrée.

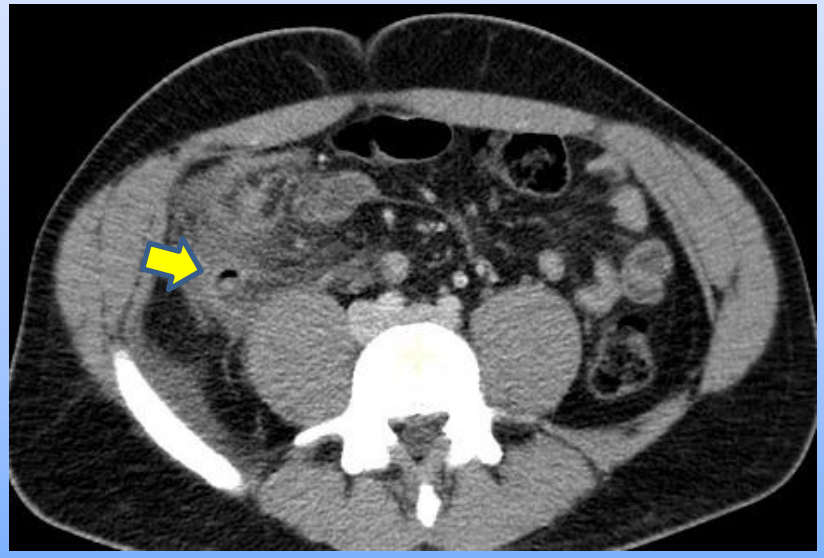






L’appendice est enflammé, les parois ne sont plus bien stratifiées et l’appendice apparaît nécrotique.

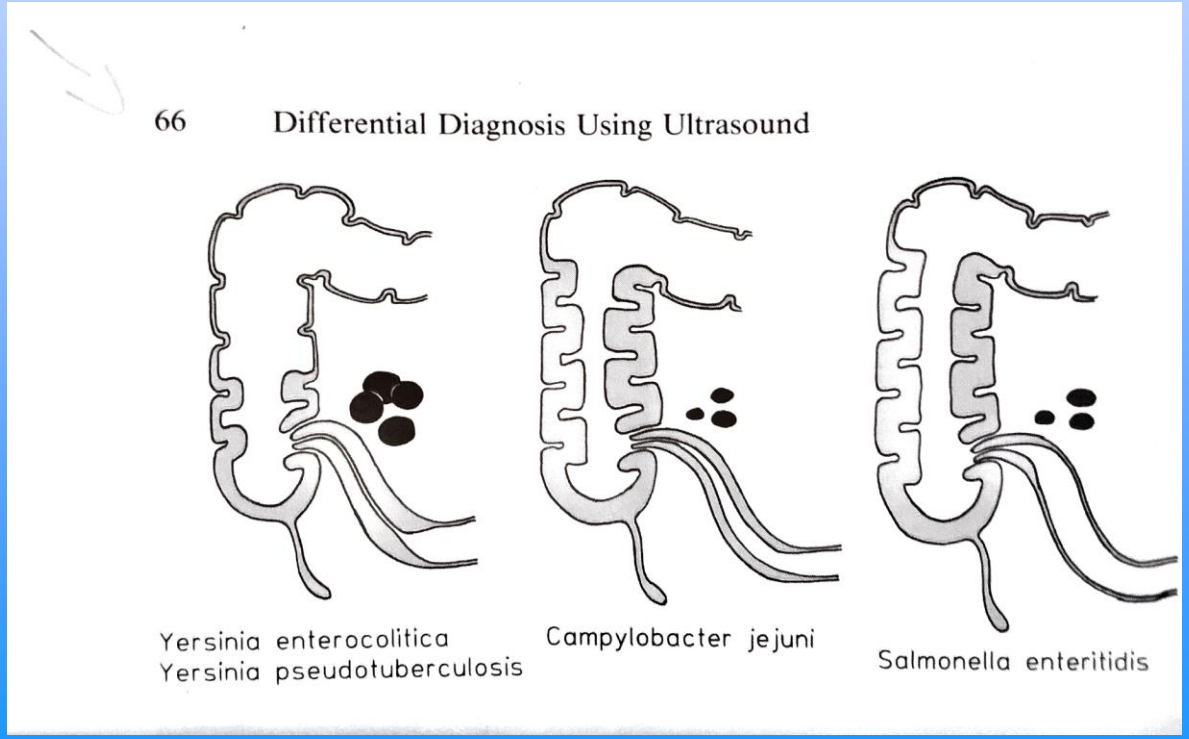


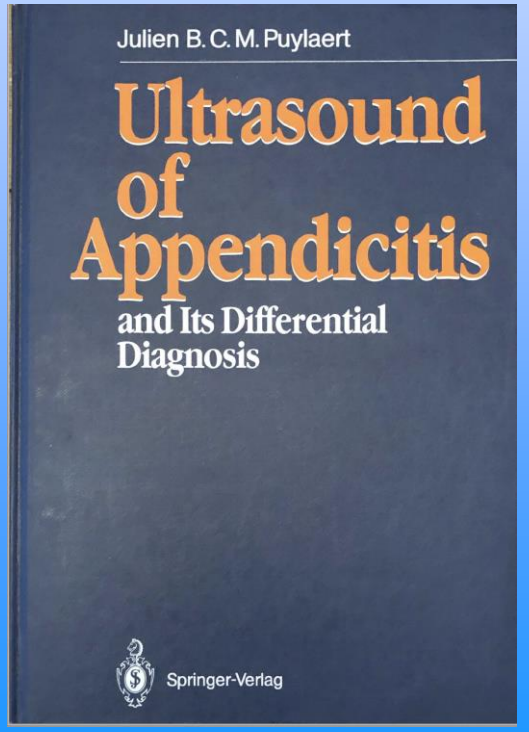


Appendicite difficile en US : on ne voit pas l'appendice avec certitude (peut-être en regard de la flèche) mais on identifie
clairement la graisse péridigestive infiltrée.
Au CT, on retrouve un segment appendiculaire (flèche) et une importante infiltration de la graisse péricaecale .

Iléo-colites droites

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





Crohn

MICI

RCUH

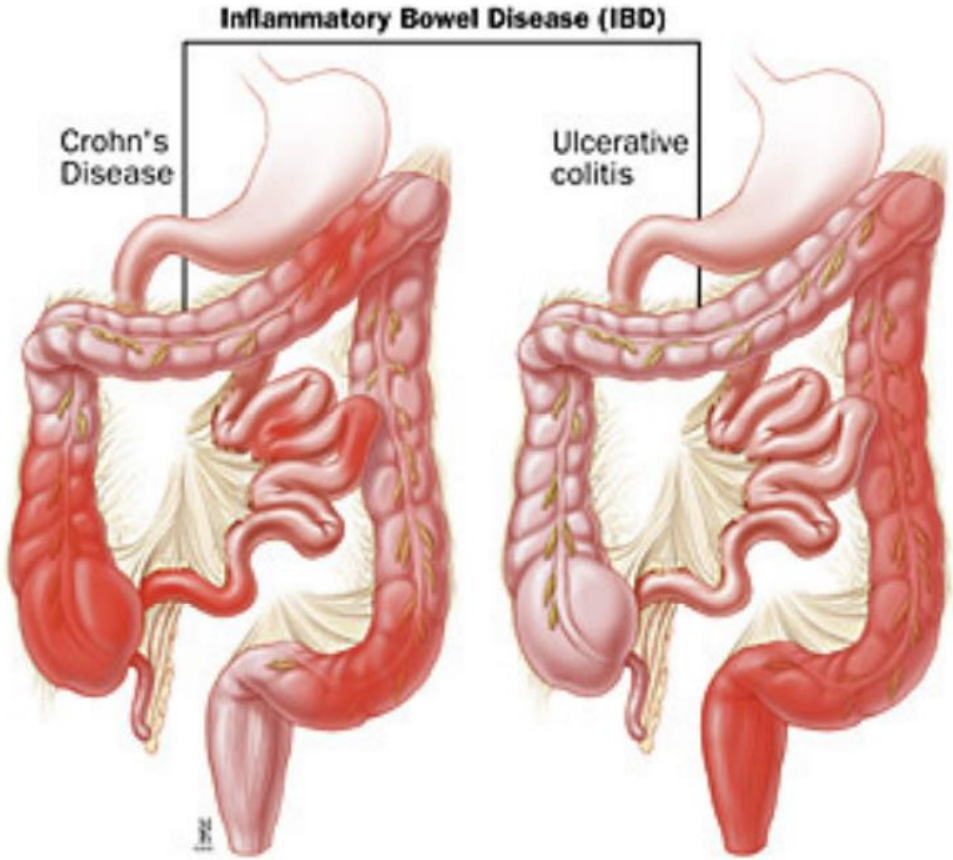


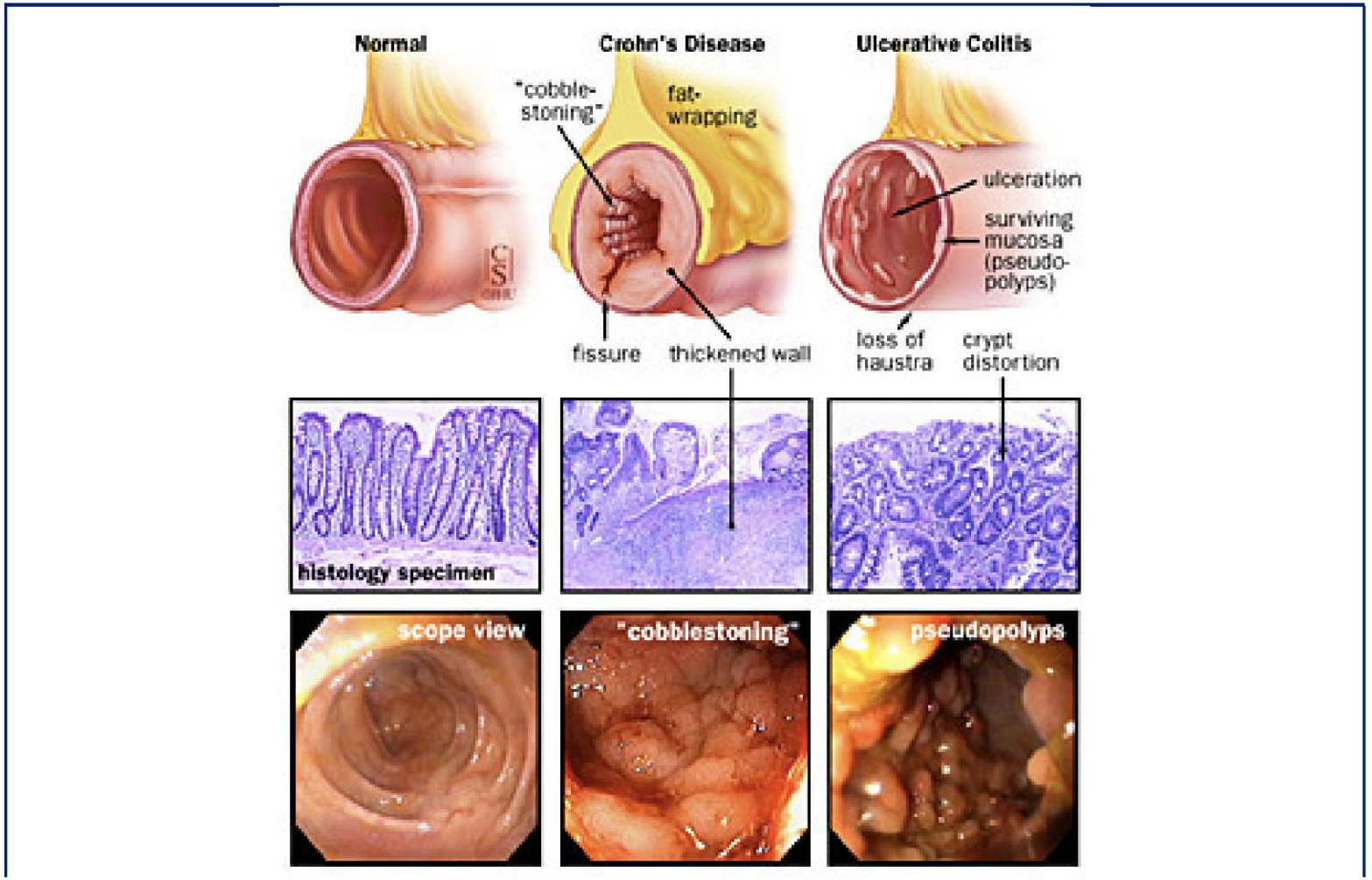
Figure 3. Anatomic distribution of Crohn's disease and ulcerative colitis.

https://www.hopkinsmedicine.org/gastroenterology_hepatology/_pdfs/small_large_intestine/crohns_disease.pdf

Crohn

MICI

RCUH



https://www.hopkinsmedicine.org/gastroenterology_hepatology/_pdfs/small_large_intestine/crohns_disease.pdf

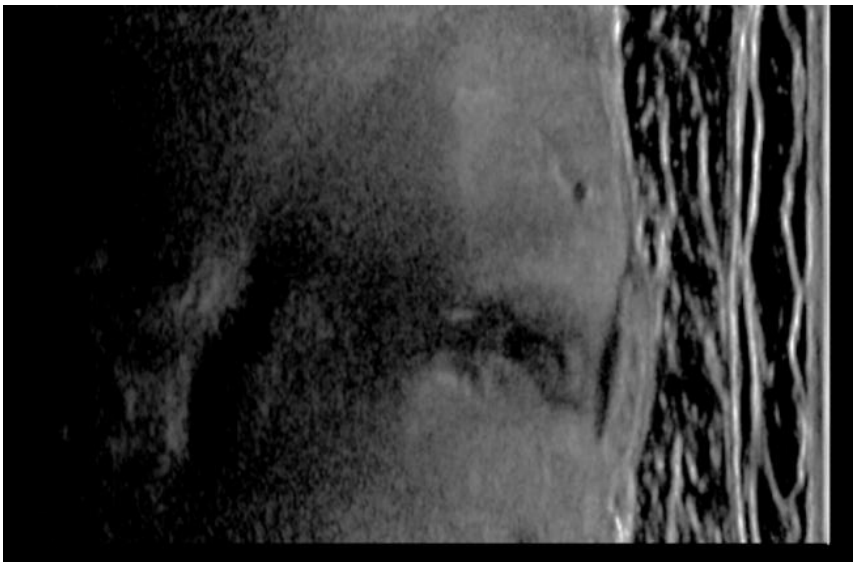
US et CROHN

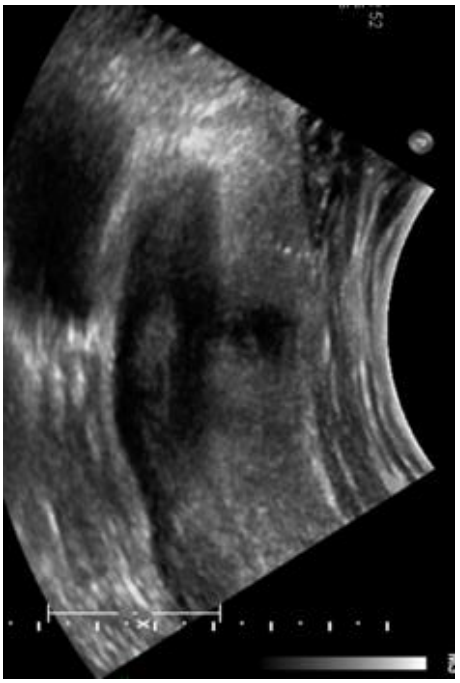
- Diagnostic : iléite vs appendicite
- Extension
- Complications: fistules, abcès
- Activité : réponse thérapeutique
- Pronostic

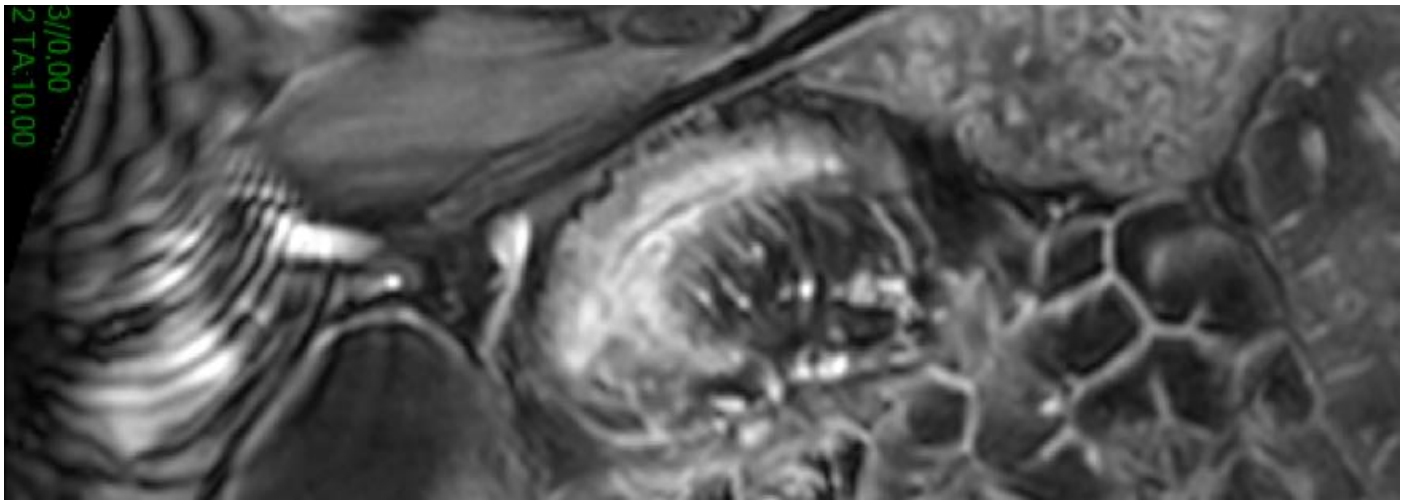
UNIVERSITÉ PARIS DESCARTES

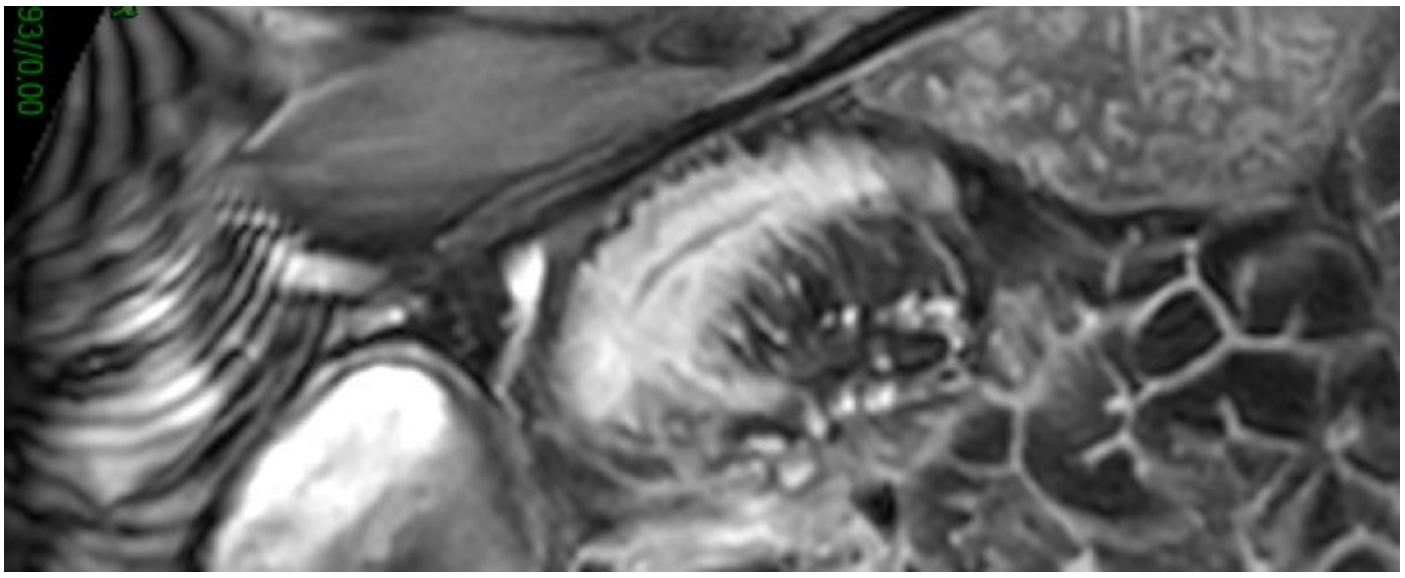
MEMBRE DE

USPC Université Sorbonne Paris Cité

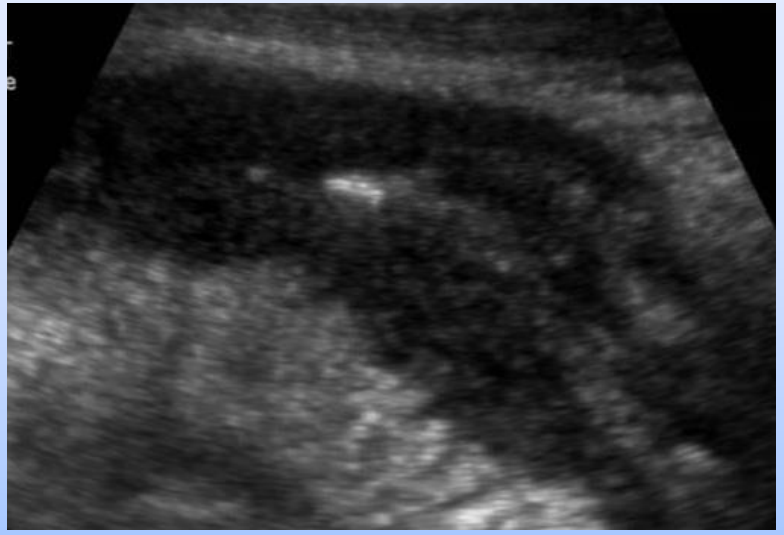


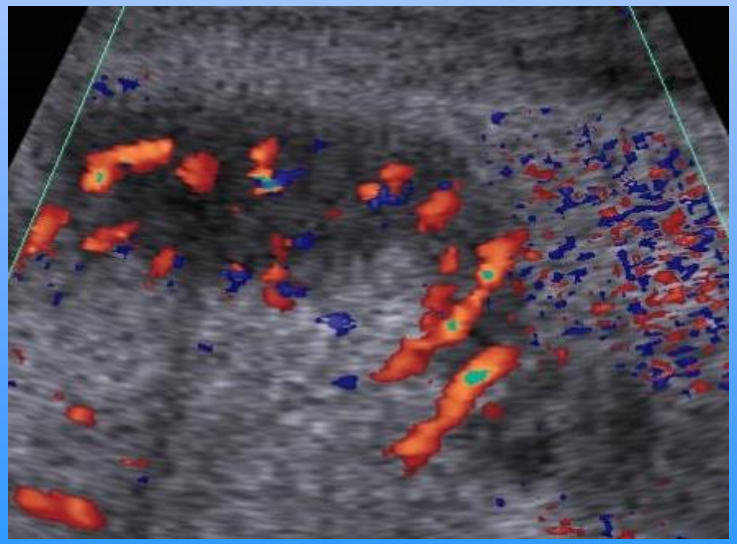


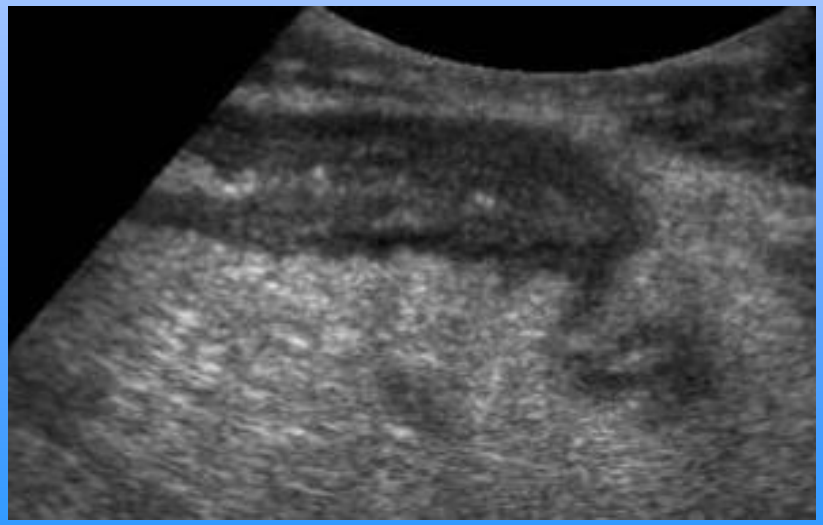


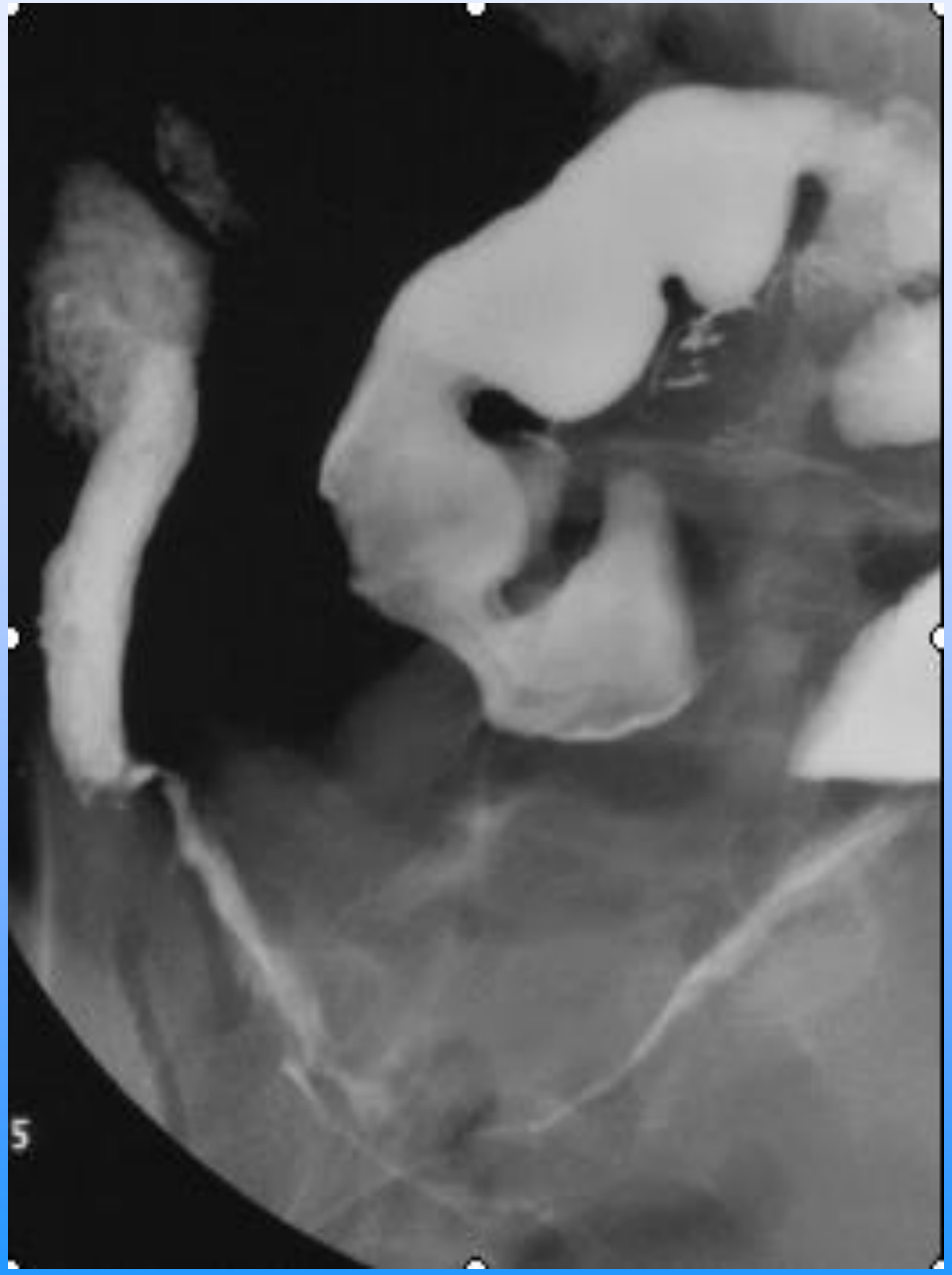


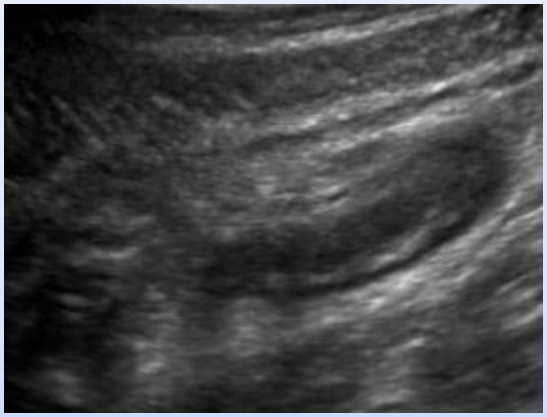

Intramural layer of fat
and thickened walls.

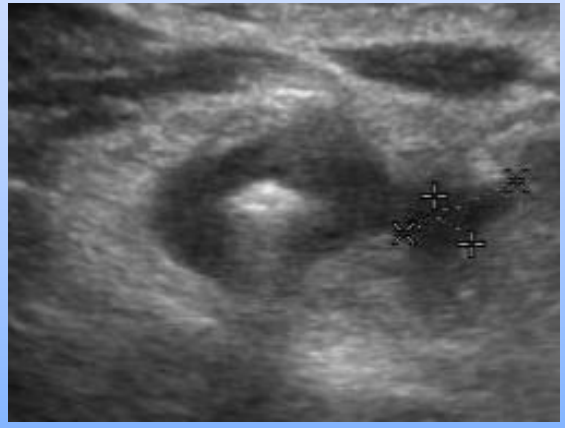


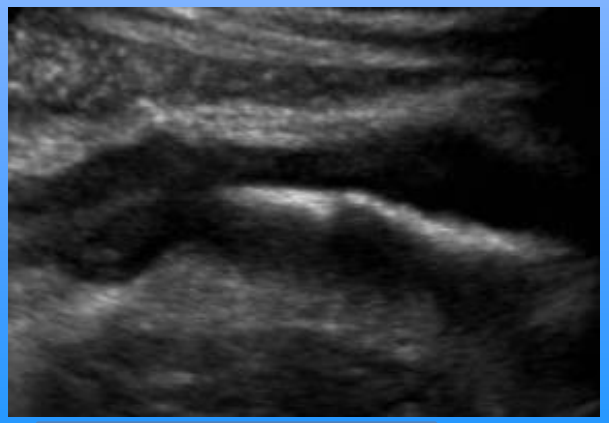




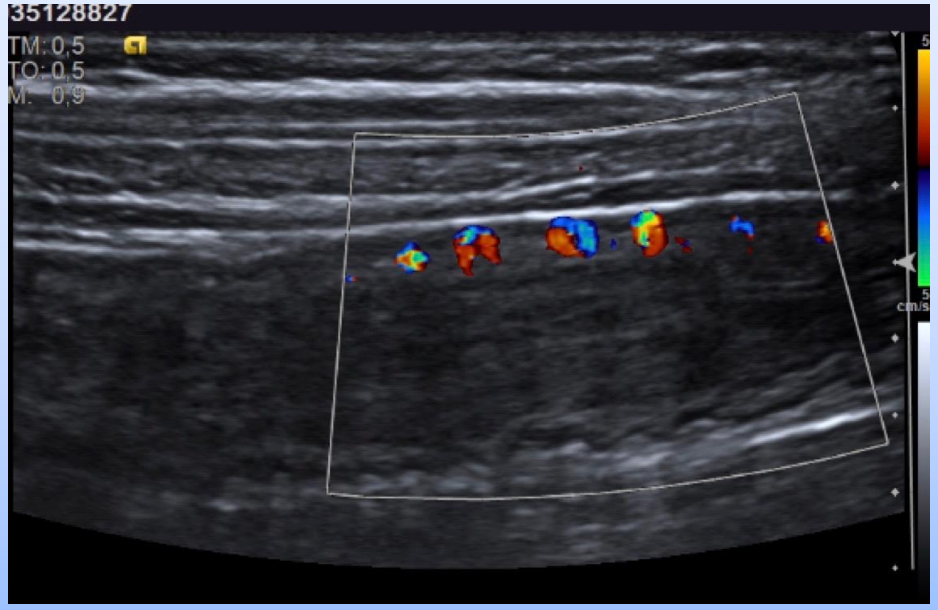


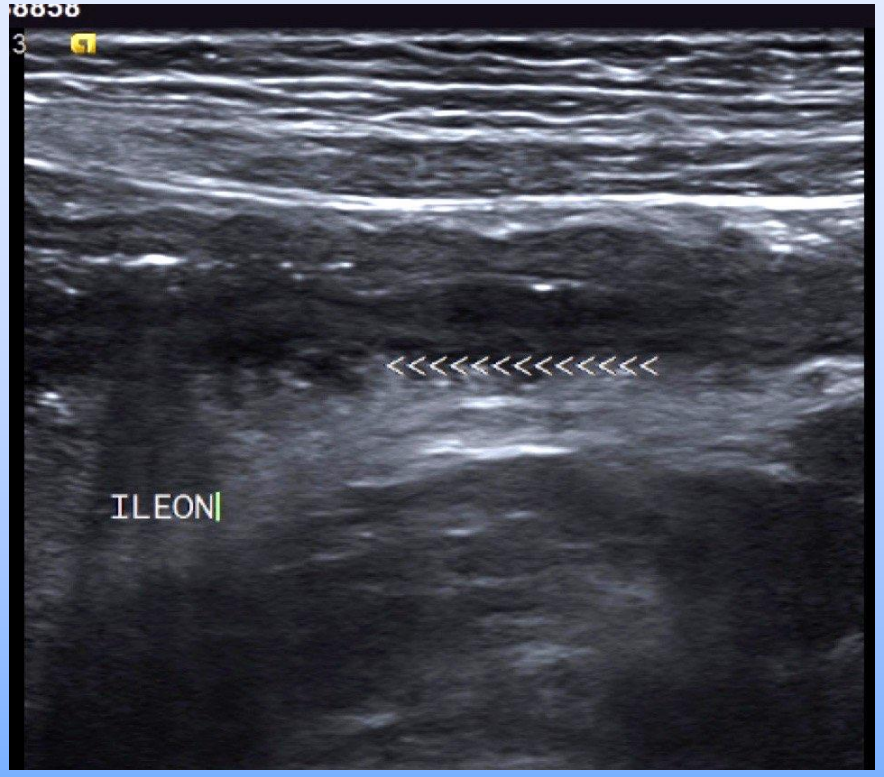






Triade de Bodart


35128827
TM: 0,5
TO: 0,5
M: 0,9
cm/s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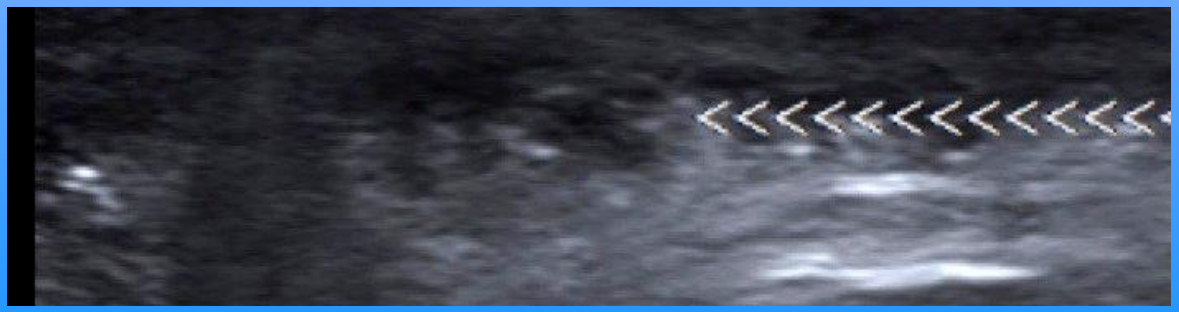

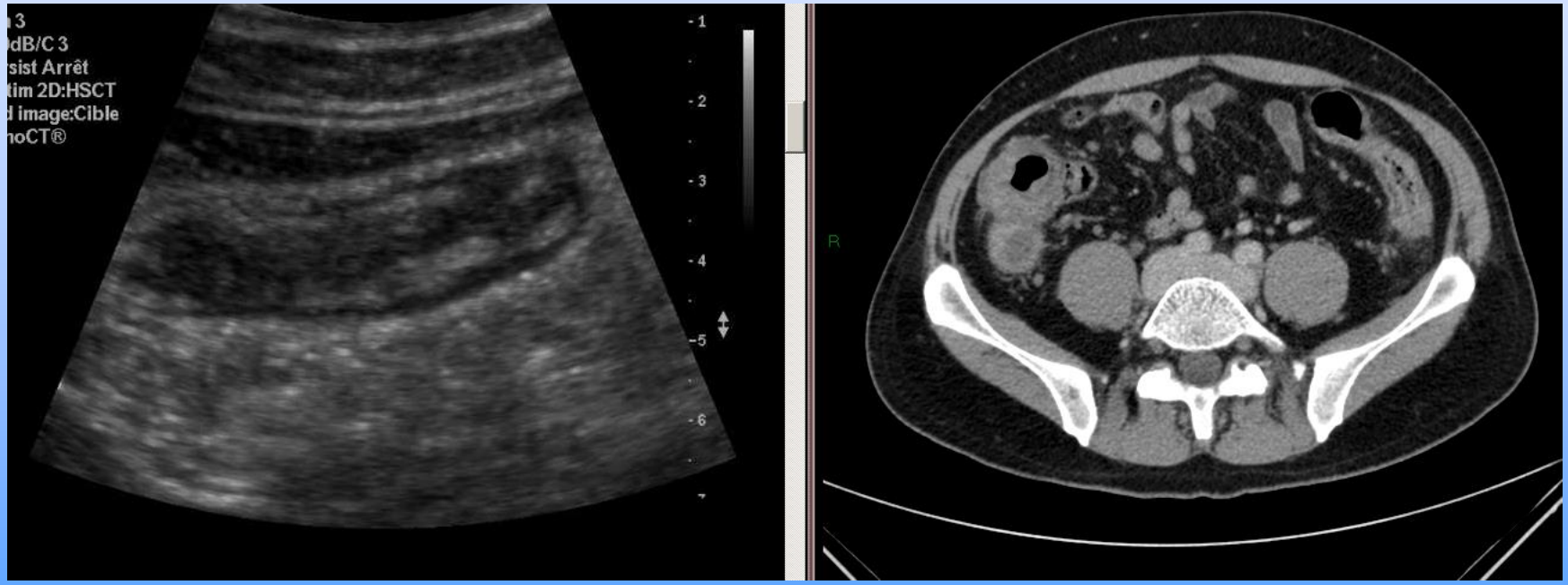
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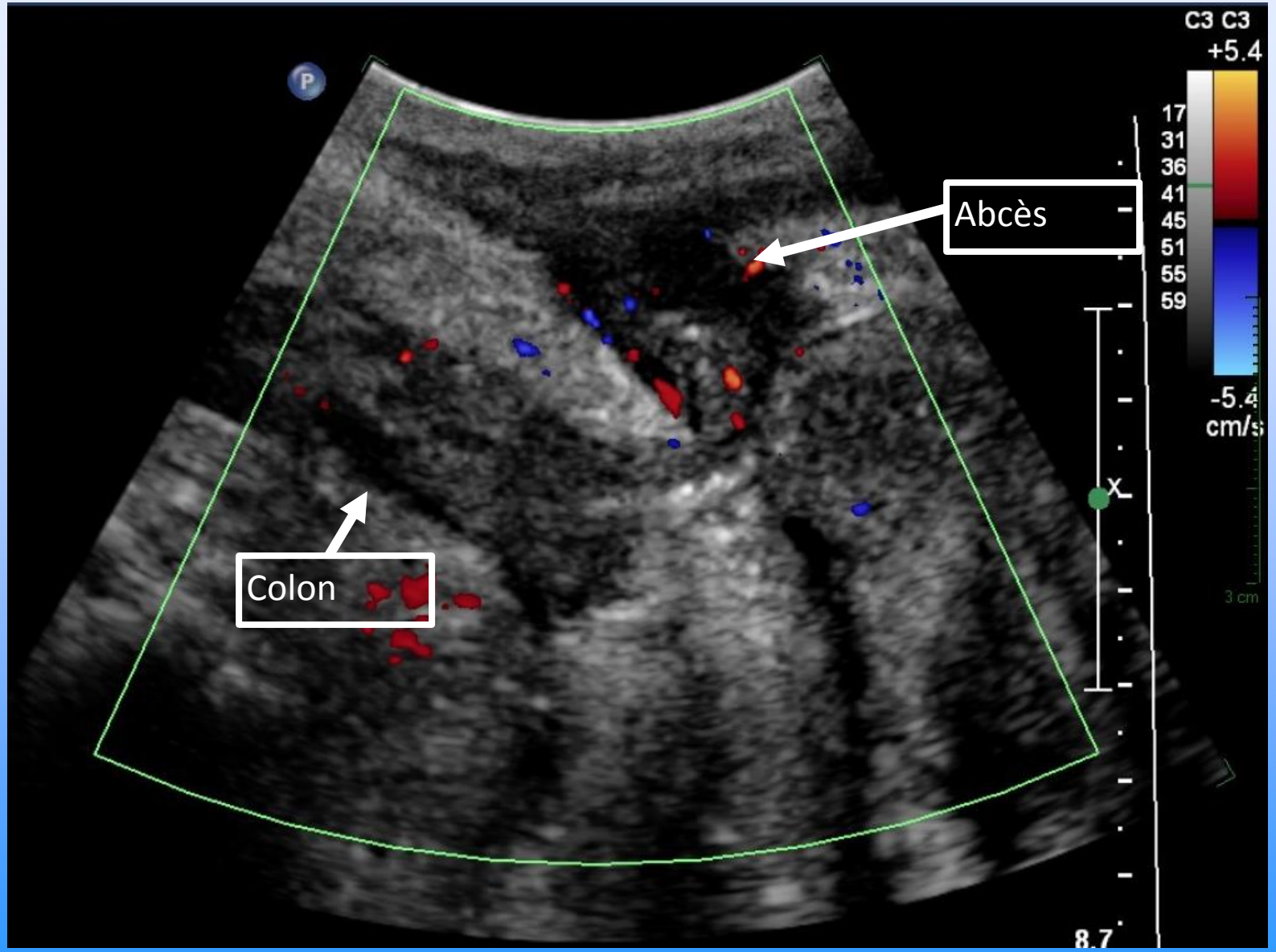

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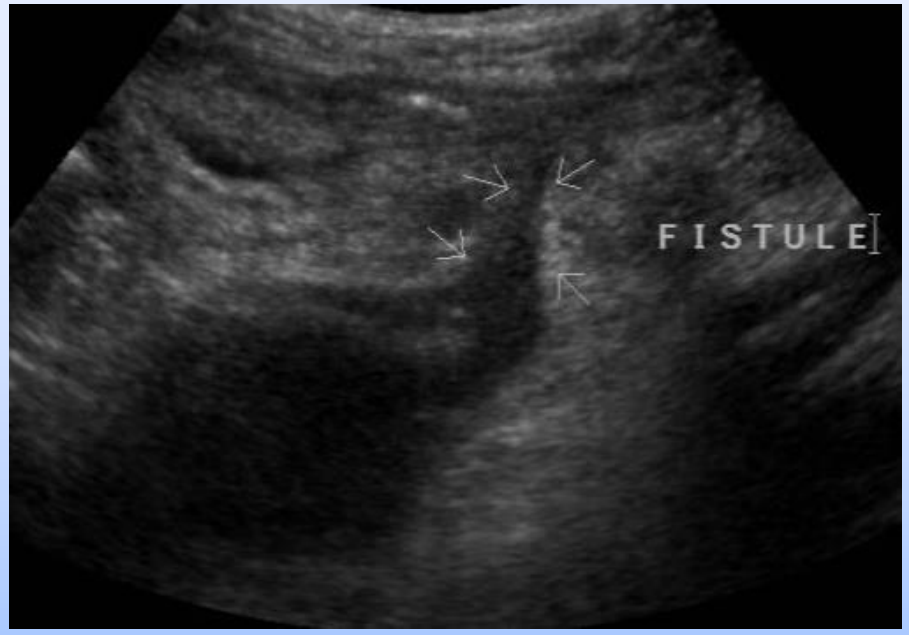
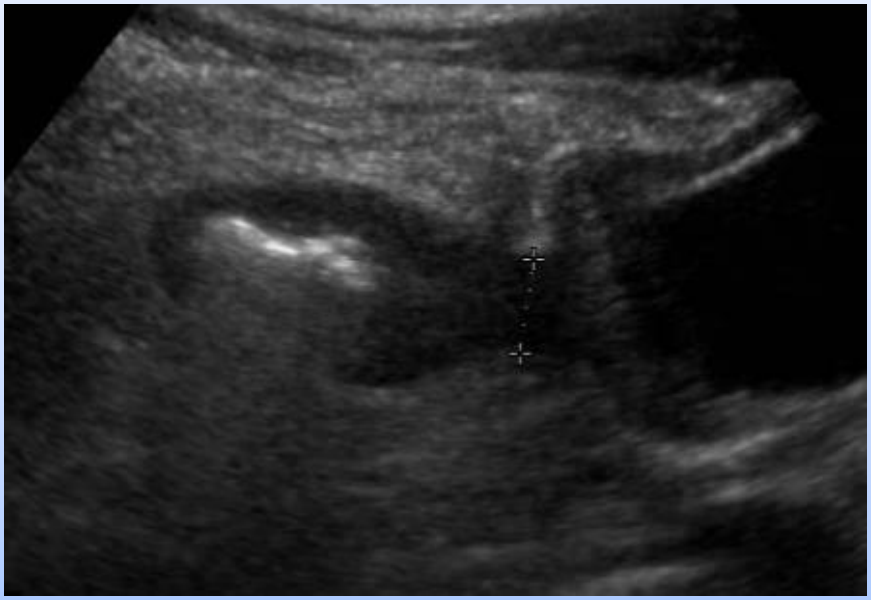
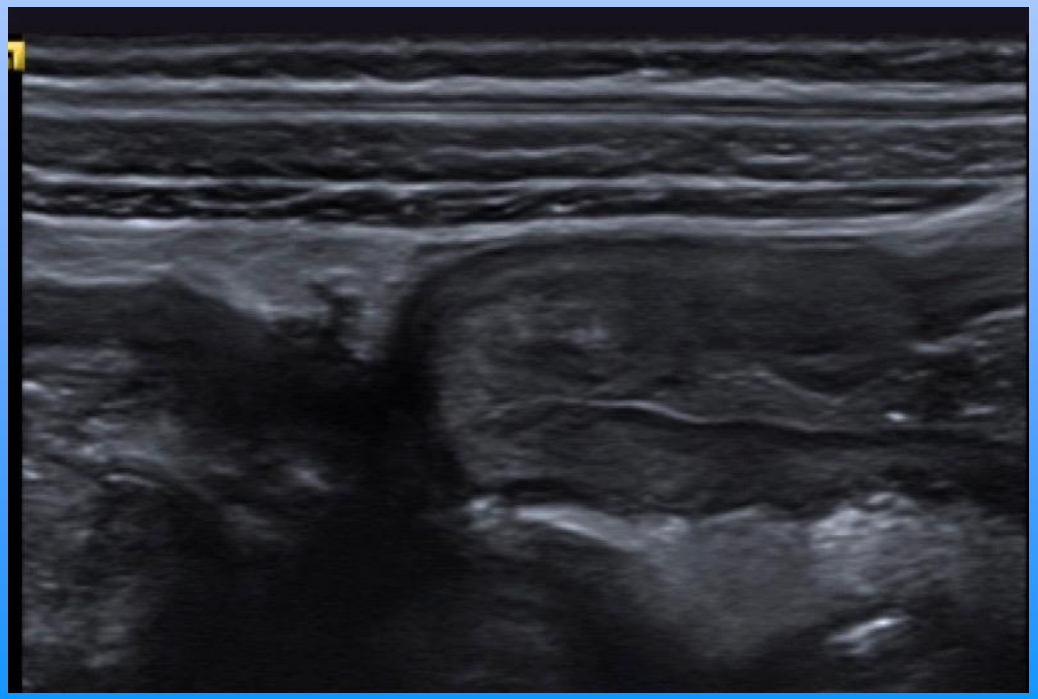
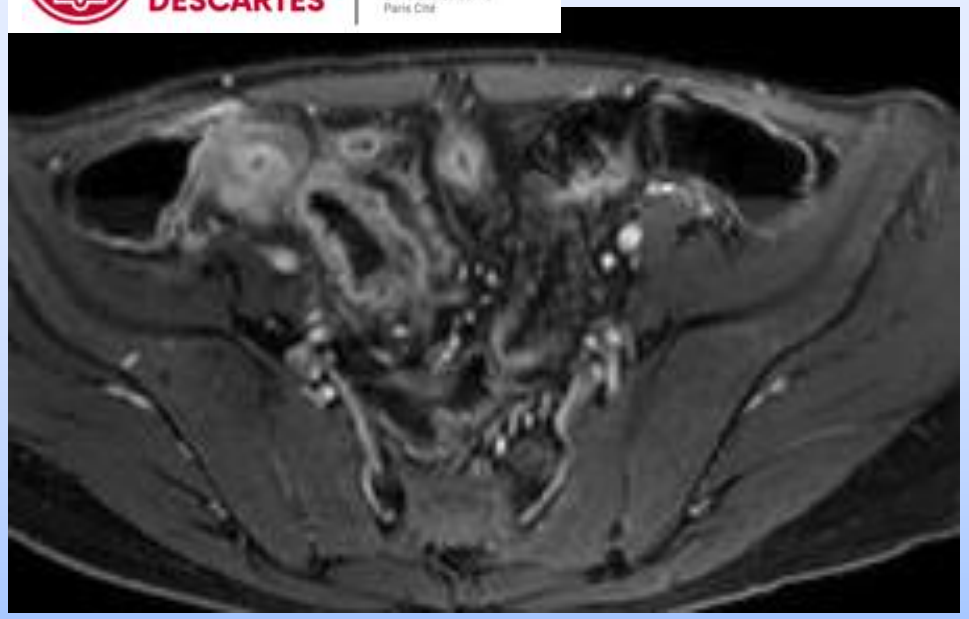


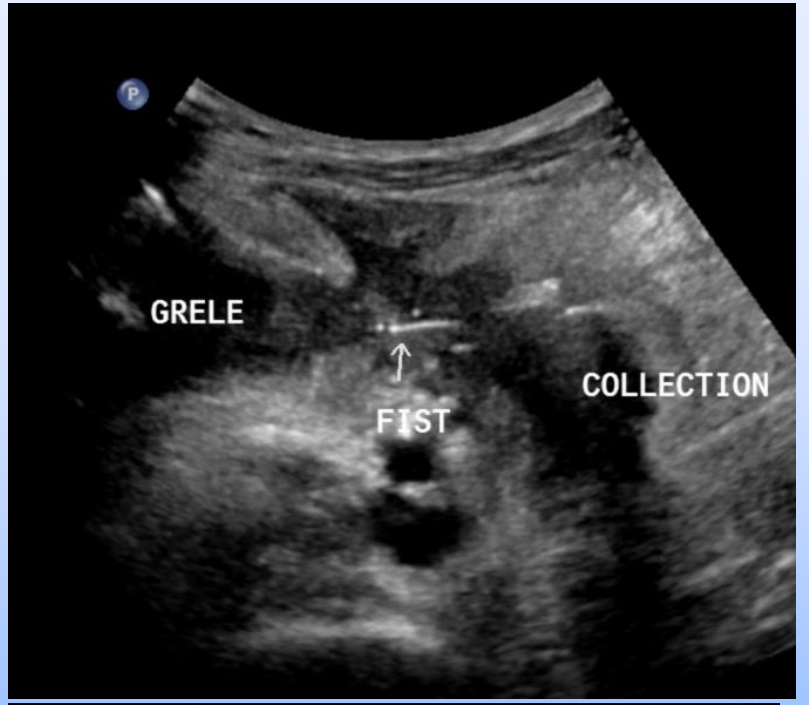


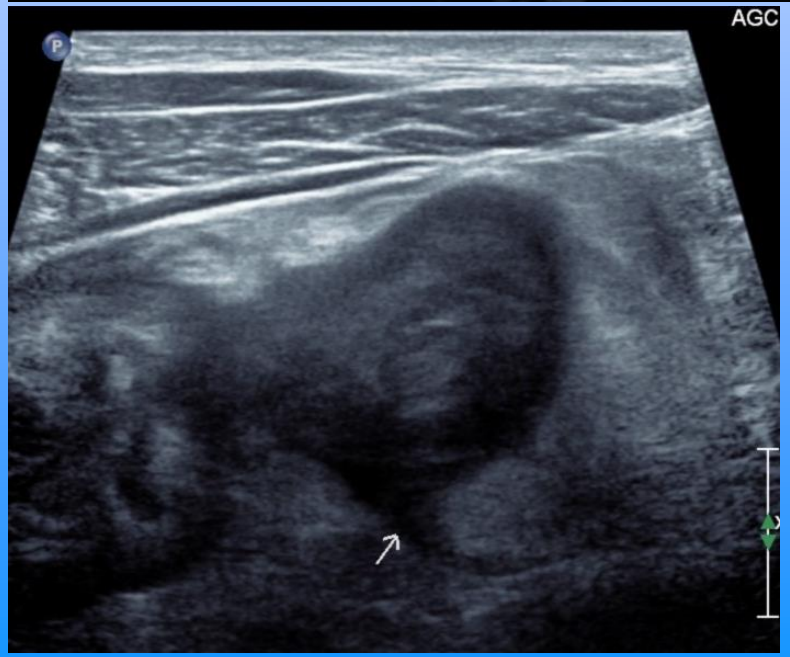


US et CROHN

- 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

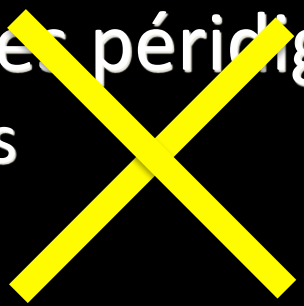
Fabiana Castiglione, M.D., Ilario de Sio, M.D., Antonio Cozzolino, M.D., Antonio Rispo, M.D., Francesco Manguso, M.D., Giovanna Del Vecchio Blanco, M.D., Elena Di Girolamo, M.D., Luigi Castellano, M.D., Carolina Ciacci, M.D., and Gabriele Mazzacca, M.D.
Divisions of Gastroenterology, University of Naples "Federico II";and The Second University of Naples, Naples, Italy

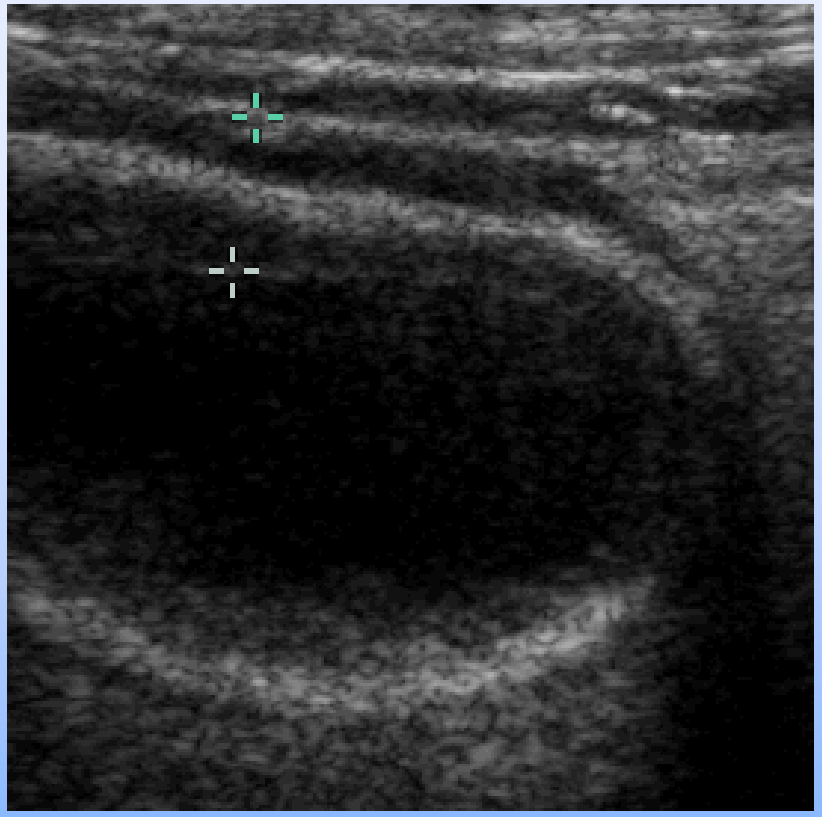
CONCLUSIONS: Data suggest that bowel wall thickness >7 mm at ultrasound is a risk factor for intestinal resection over a short period of time. Routine use of abdominal ultrasound during evaluation of patients with Crohn's disease may identify a subgroup that is at high risk for surgery.

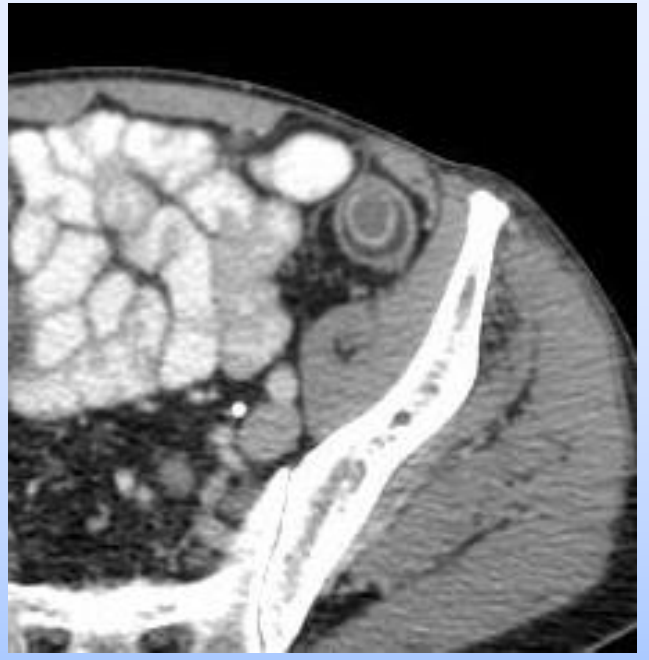
(Am J Gastroenterol 2004;99:1977–1983)

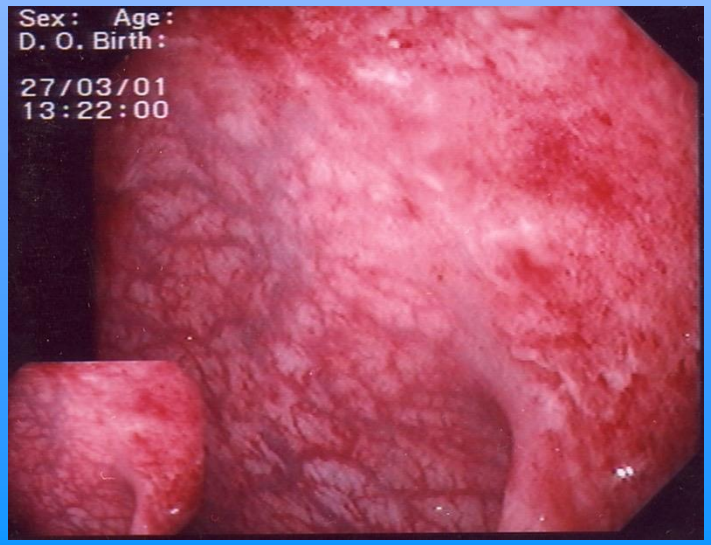
RCUH vs Crohn

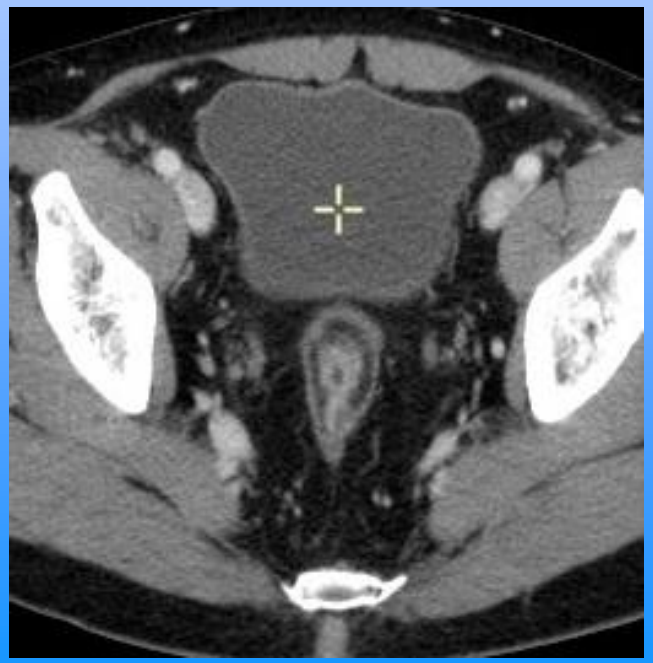
- Aspect de la paroi
- Topographie des lésions
- Anomalies péridigestives
  - Fistules
  - Abcès

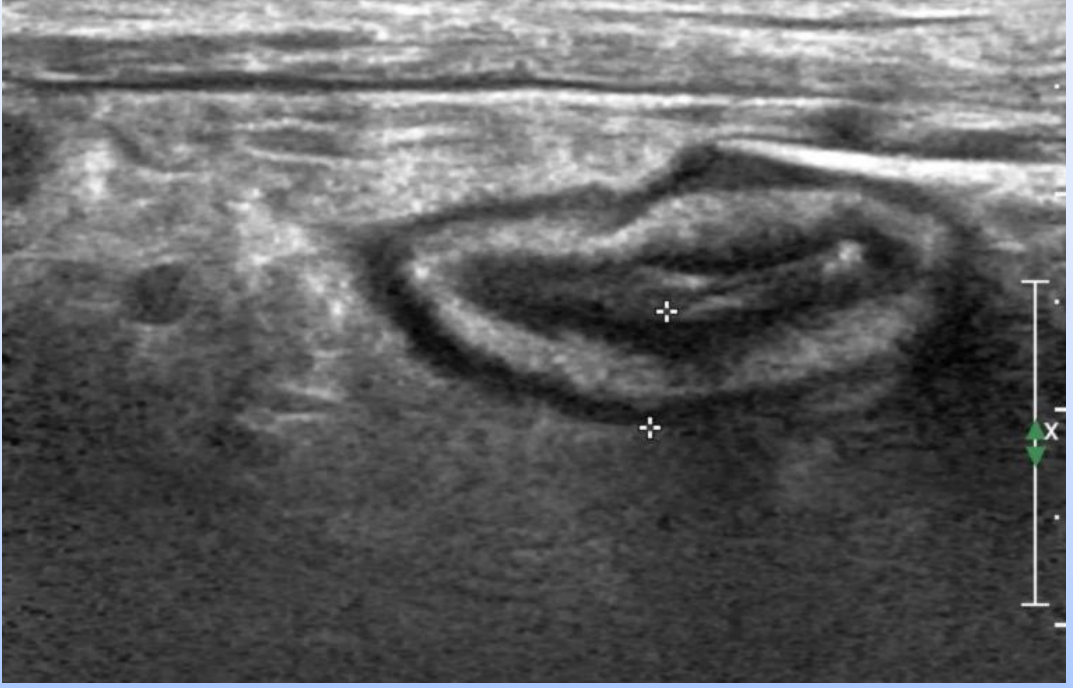


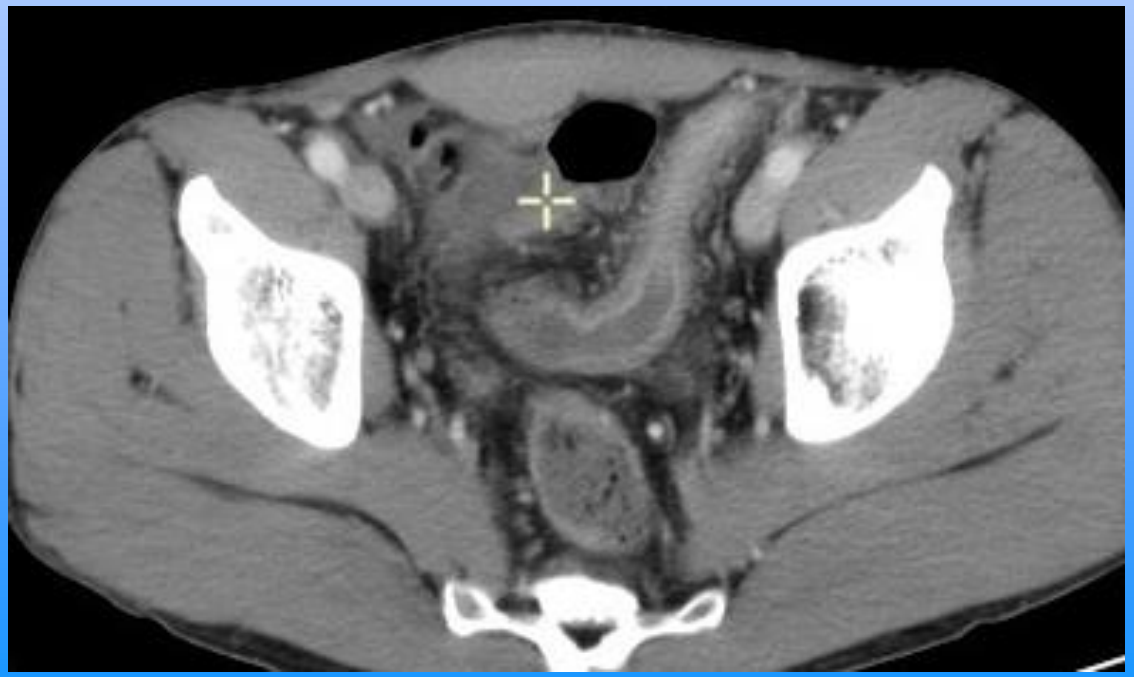


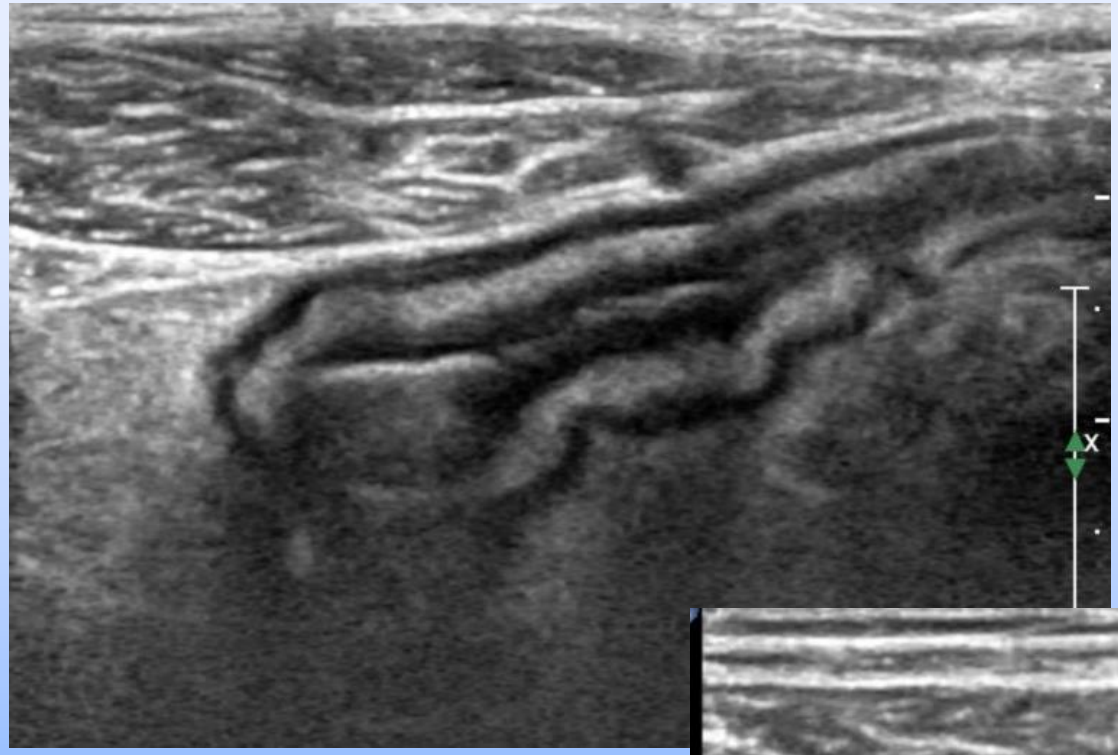


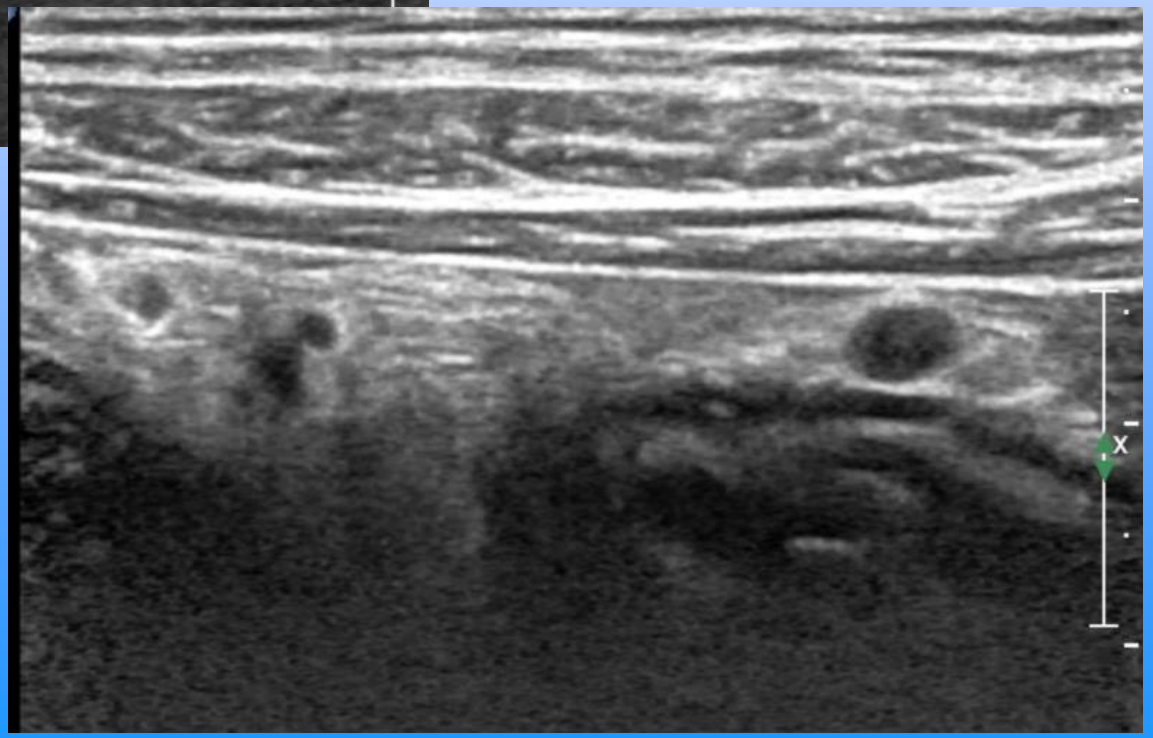


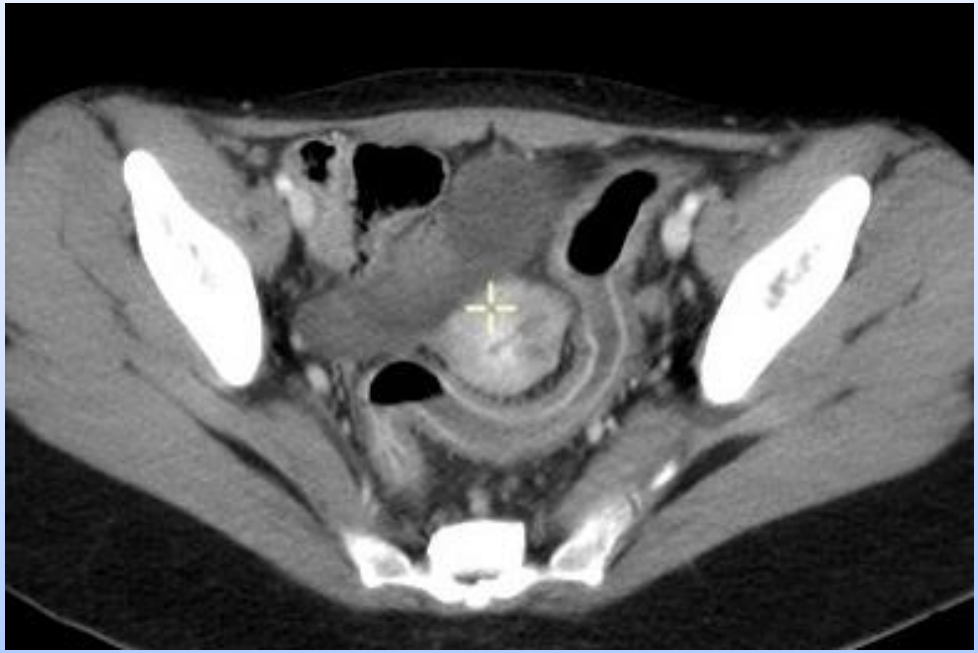


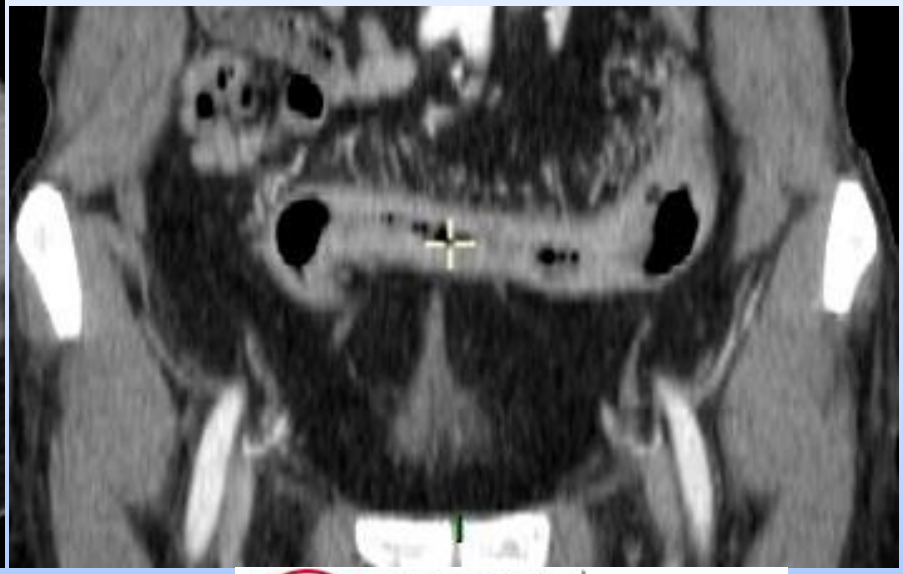












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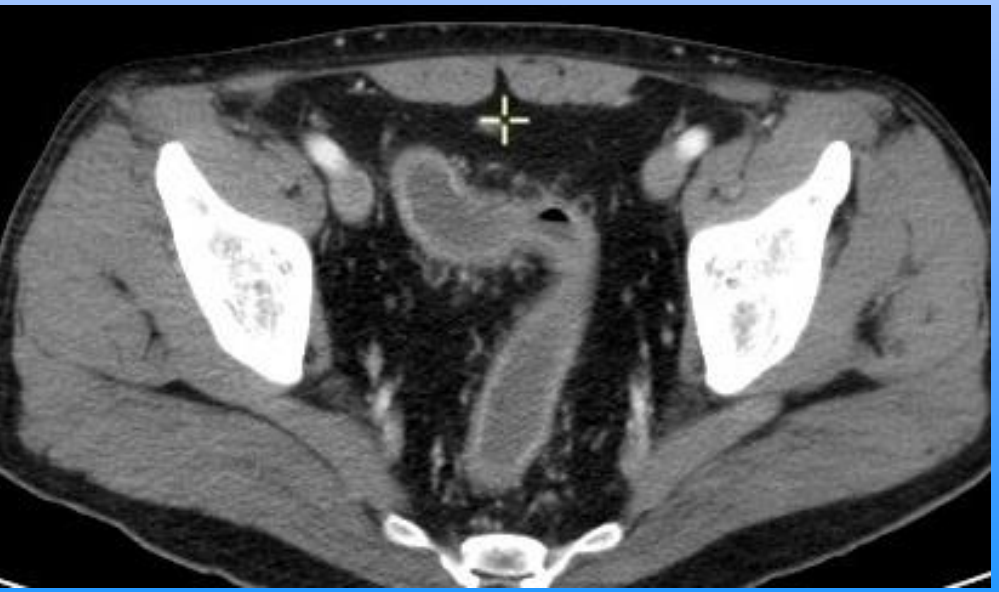

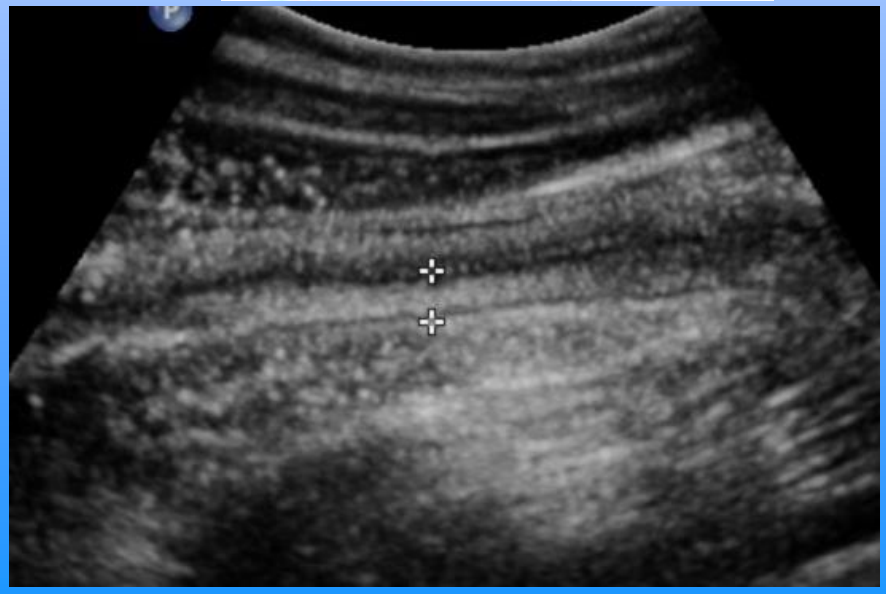

US et MICI

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