

Prise en charge radiologique de l'obstruction intestinale

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OBSTRUCTION INTESTINALE

Arrêt de la progression des gaz et des matières dans le tube digestif en raison d'un obstacle mécanique ou d'un fonctionnement inadéquat du tube digestif

Obstruction de haut-grade:

- calibre intestinal pré-obstacle \geq double du calibre post-obstacle
- collapsus complet des anses post-obstacle

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15% des admissions chirurgicales pour syndrome abdominal aigu non traumatique

Présentation clinique et biologique peu spécifique

Risque élevé d'ischémie

'Never let the sun rise or set on an obstructed abdomen'

L'ischémie intestinale ne survient que dans des obstructions d'origine extrinsèque:

- ***Brides et adhérences***
- ***Hernies interne et externe***

soit lorsque les vaisseaux intestinaux peuvent être comprimés et/ou tordus

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- Douleur abdominale depuis 4 j. ou plus
- Défense
- CRP > 75 mg/l
- GB > 10.000 /mm³

OBSTRUCTION INTESTINALE

- Défense abdominale

- GB > 10.000 /mm³

sont modérément prédictifs d'une strangulation intestinale

TABLE I: Nonobstructive Causes of Small Bowel Dilatation

Adynamic ileus

- Recent surgery or trauma

- Shock

- Electrolyte abnormality

- Medications (opiates, anticholinergics)

Celiac disease

Scleroderma

Ischemia

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Localisation:

- Intestin grêle: 60-80 %
- Côlon

Occlusions mécaniques du grêle:

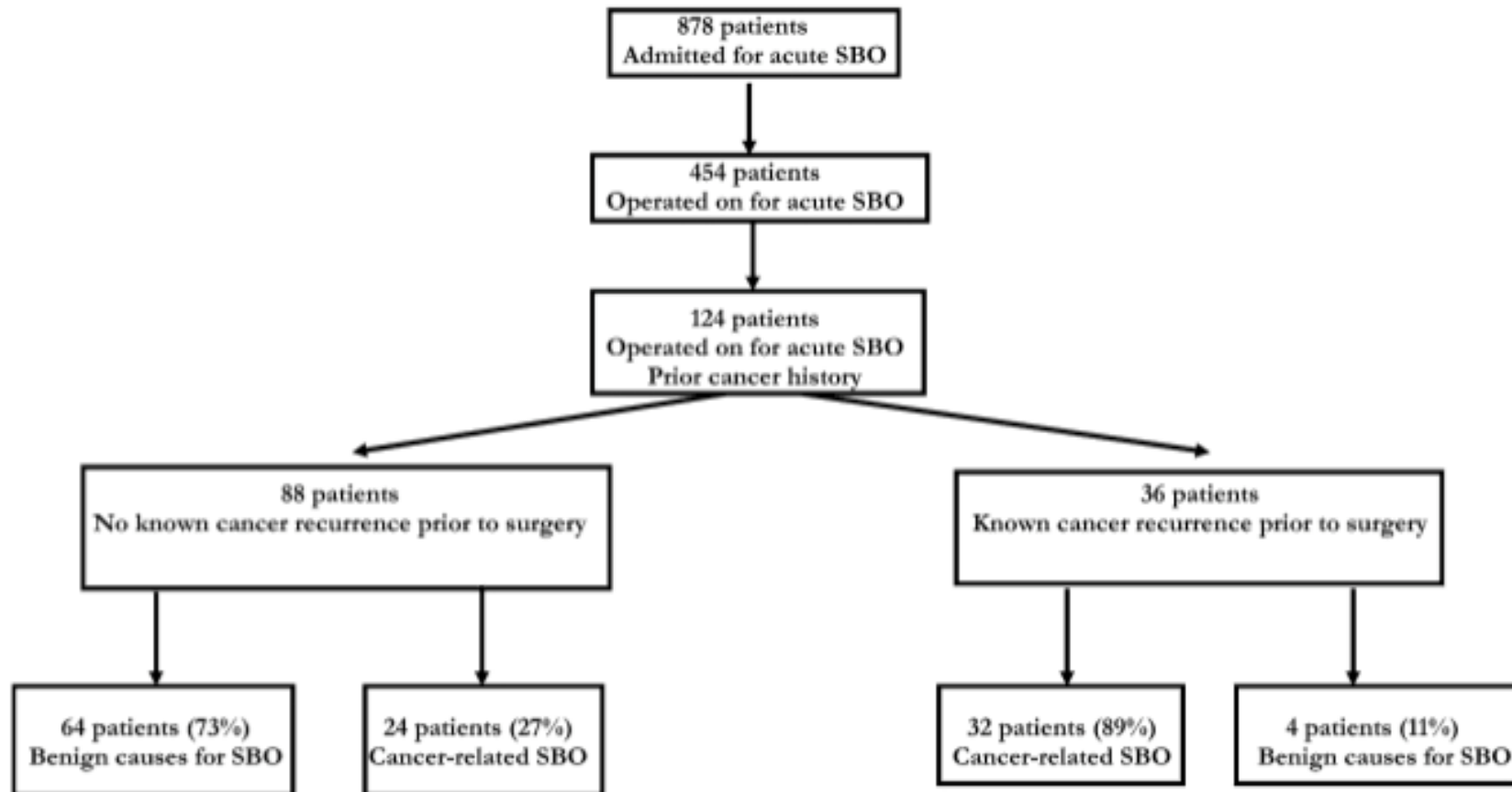
- Adhérences/brides: 50-70 %
- Hernies (internes/ externes): 15%
- Néoplasiques (métastatiques > primitives): 15%
- Divers (inflammation/radique/biliaire/bézoard)

Facteurs obstruction adhérentielle:

- chirurgie colorectale (24%)
- chirurgie gynécologique (22%)
- hernioraphies (15%)
- appendicectomie (14%)

Miller G: 'Natural history of patients with adhesive small bowel obstruction' Br Journal of Surg 2000

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Facteurs influençant morbidité/mortalité:

- âge
- comorbidité
- strangulation non viable
- retard de traitement (>24h)

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Rôle de la radiologie:

1. obstruction?
2. localisation?
3. cause?
4. strangulation?

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Examens radiologiques:

1. ASP (Abdomen sans préparation)

1. MDCT

(3. Opacification intestinale)

Abdomen sans préparation:

1. obstruction?

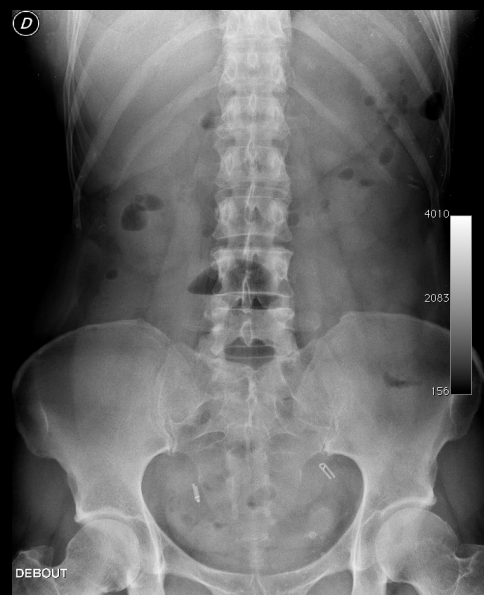
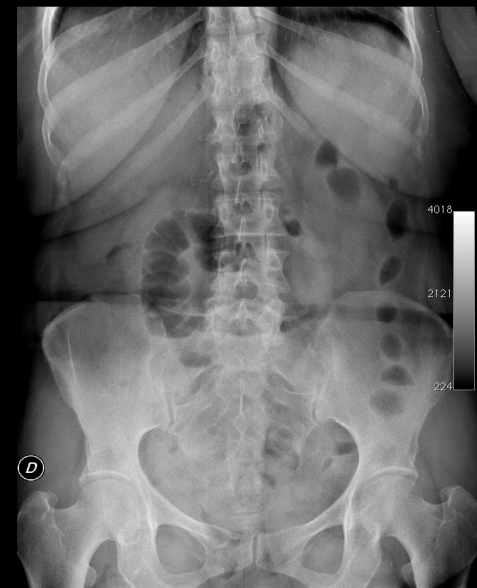
diagnostic: 50-60%

équivoque: 20-30%

normal/aspécifique: 10-20%

2. localisation? moyen à mauvais

de préférence en position couchée



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CT scanner:

1. obstruction? diagnostic: 100%
2. localisation? diagnostic: 100%
3. cause? diagnostic: 73-96%
4. strangulation? diagnostic: 83-96%

Diagnostic CT obstruction mécanique de haut-grade:

- dilatation intestinale > 2.5 cm + stase liquide/matières
- rupture de calibre entre les anses pré- et post-lésionnelles

Diagnostic CT localisation:

- utiliser mode ciné, partant de la valvule iléo-caecale ou de D2
 - évaluer quantité d'anses collabées

Diagnostic CT localisation:

- valeur pronostique dans occlusion adhérentielle

Donckier V et al 'Contribution of CT to decision making in the management of adhesive small bowel obstruction' Br J Surg 1998 Aug

- rôle dans la planification des examens complémentaires

Diagnostic CT cause:

- analyse du syndrome lésionnel

- en l'absence de lésion visible à la jonction anses dilatées/collabées: bride/adhérences

OCCLUSION ADHÉRENTIELLE



OCCLUSION ADHÉRENTIELLE



Diagnostic CT complications ischémiques:

- diminution du rehaussement (paroi & vaisseaux)
- épaissement pariétal
- liquide mésentérique
- congestion des vaisseaux mésentériques
- ascite

Diminution du rehaussement:

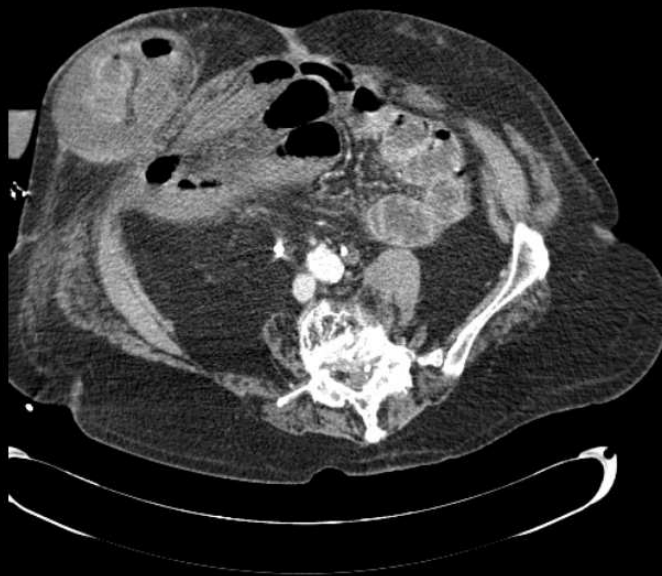
- sensibilité: 48-56%
- spécificité: 94-100%

Zalcman M et al *Helical CT signs in the diagnosis of intestinal ischemia in SBO* AJR 2000 Dec
Jancelewicz T et al *Predicting strangulated SBO: an old problem revisited* J Gastrointest Surg
2009 Jan



Image size: 512 x 512
View size: 888 x 619
WL: 14 WW: 344

A



Im: 284/441
Zoom: 121% Angle: 0
Thickness: 2.00 mm Location: -408.10 mm

01:41:58
20/11/08

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TABLE I CT Signs of Intestinal Ischemia in Small-Bowel Obstruction in 24 Patients					
CT Signs	Ischemia ($n = 24$) ^a		Nonischemia ($n = 120$) ^b		Specificity (%)
	n	%	n	%	
Reduced enhancement of bowel wall	10	48	0		100
Thickening of bowel wall	9	38	26	22	78
Thickening of bowel wall with target sign	4	17	4	3.6	96
Abnormal enhancement of bowel wall (reduced enhancement, target sign, or both)	12	57	4	3.6	96
Mesenteric fluid	21	88	12	10	90
Mesenteric congestion	14	58	25	21	79
Ascites	17	75	29	24	76

^aIV contrast material used, $n = 21$.

^bIV contrast material used, $n = 109$.

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Sign Combination	Sensitivity (%)	Specificity (%)	Positive Predictive Value (%)	Negative Predictive Value (%)
Mural thickening and mesenteric fluid	29.2	99.2	87.5	87.5
Mural thickening and mesenteric vascular congestion	29.2	93.3	46.7	86.8
Mural thickening and ascites	25	94.2	46.2	86.3
Mesenteric fluid and mesenteric vascular congestion	50	94.2	63.2	90.4
Mesenteric fluid and ascites	66.7	94.2	69.6	93.4
Mesenteric vascular congestion and ascites	41.7	94.2	58.8	89

Zalcman M et al *Helical CT signs in the diagnosis of intestinal ischemia in SBO* AJR 2000 Dec

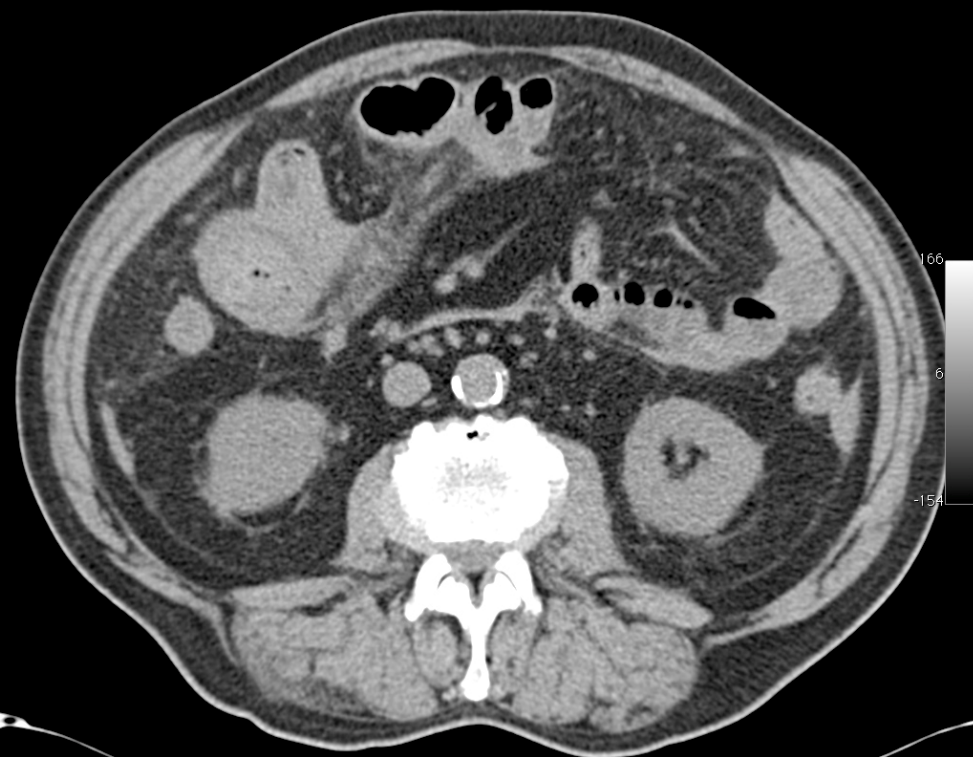
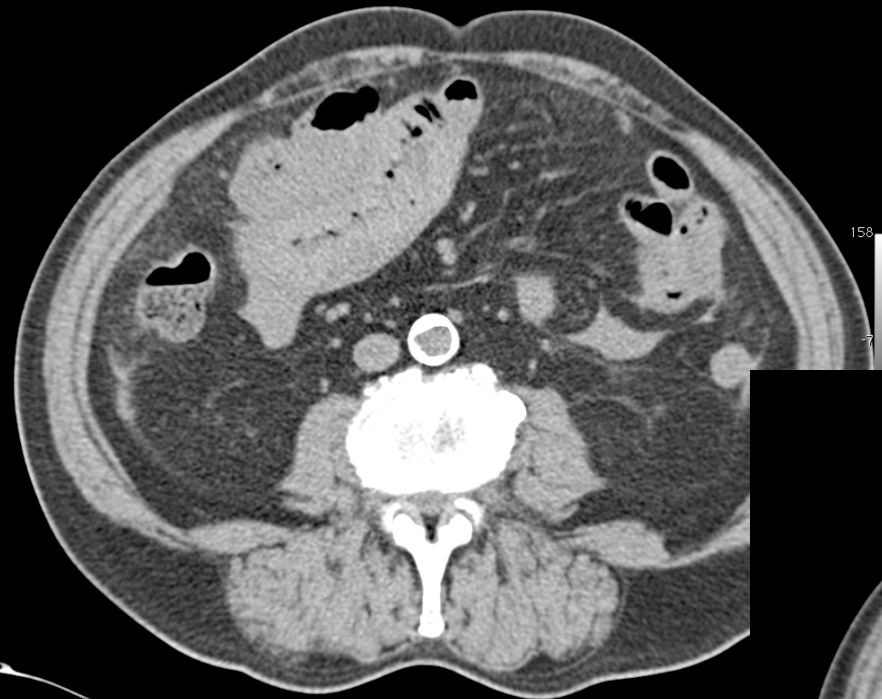
Epaississement pariétal: diagnostic différentiel

- Inflammation (intrinsèque/extrinsèque)
 - Infection
 - Hématome de paroi
 - Vasculites
 - Angiooedème

ILÉITE INFECTIEUSE



HEMATOME DE PAROI



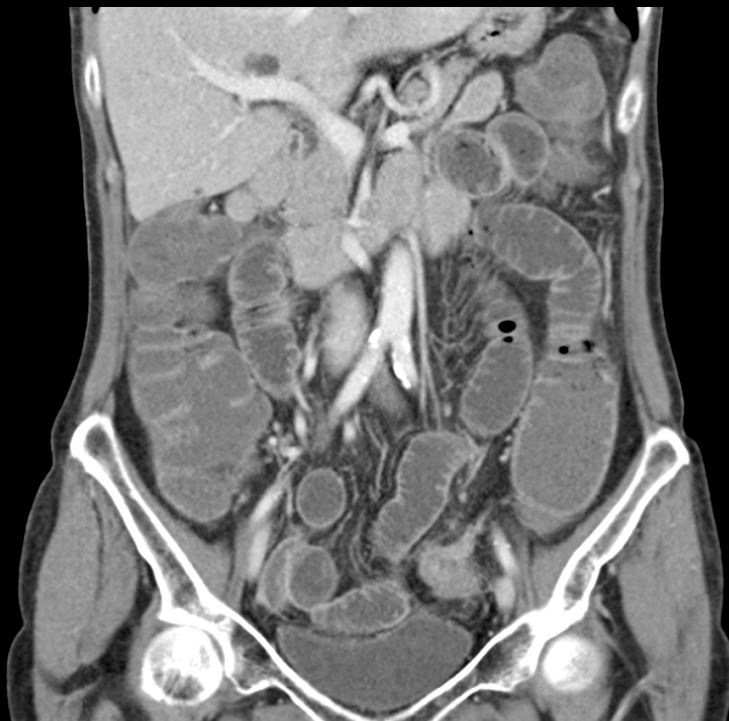
HENOCH-SCHONLEIN PURPURA



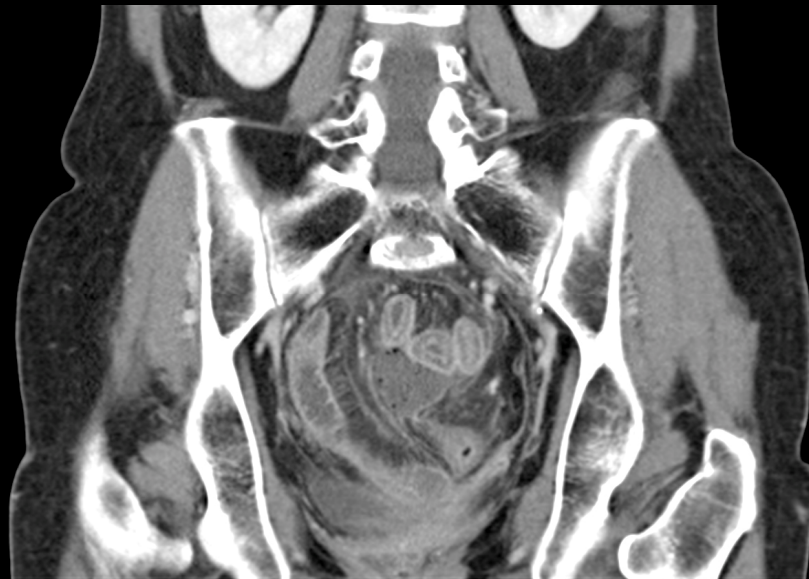
ANGIOEDEME



PÉRITONITE



260
60
-140



260
60
-140



258
96
-162

Limites diagnostiques du CT:

- exploration réalisée après aspiration gastrique
- sténose intrinsèque courte
- sténoses étagées

place de l'opacification:

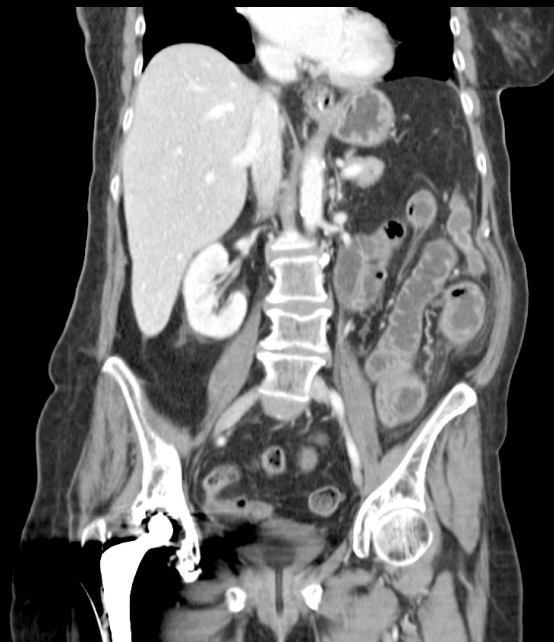
jamais en première intention!

- doute diagnostique
- possibilité de lésions étagées
- cartographie préopératoire
- réponse équivoque au traitement médical

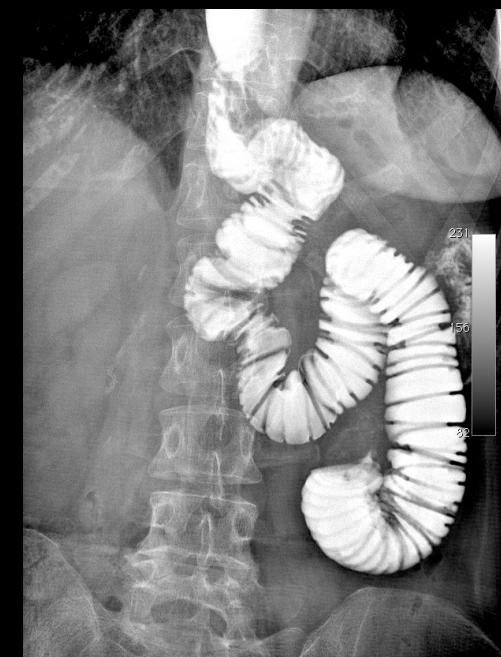
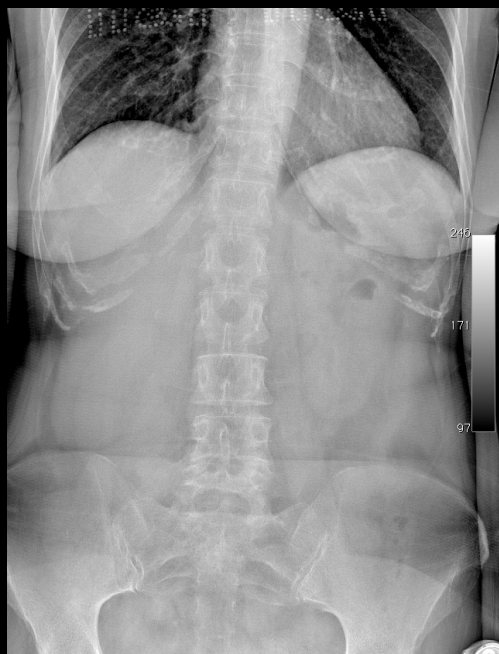
FEMME 72 A D+ ABD CRAMPOÏDE, DIARRHÉE
AQUEUSE, VOMISSEMENTS. GB 4200 CRP 36



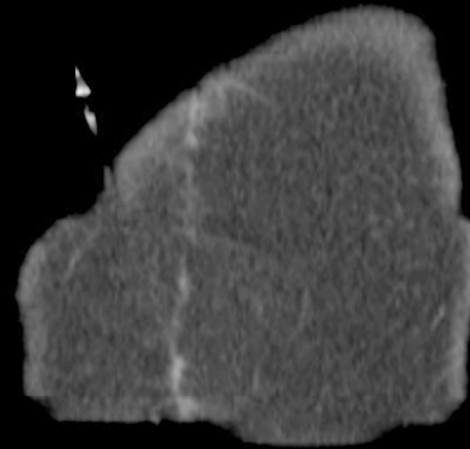
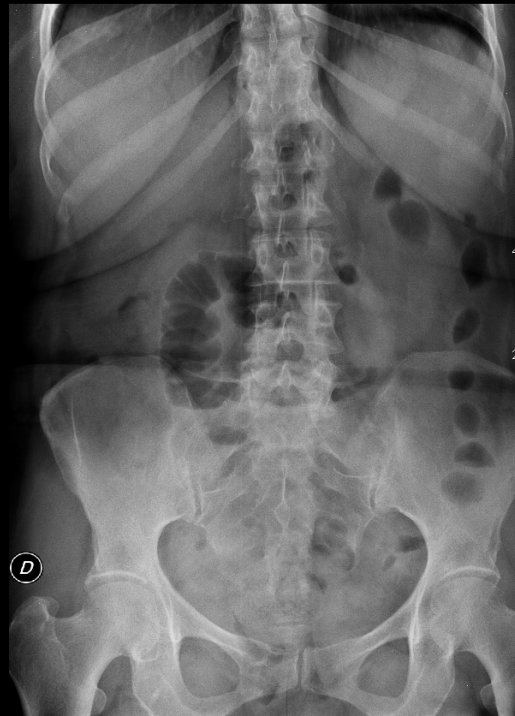
48H +tard



FEMME 58 A, 14 J POST-GASTRECTOMIE TOTALE, NAUSÉES & VOMISSEMENTS



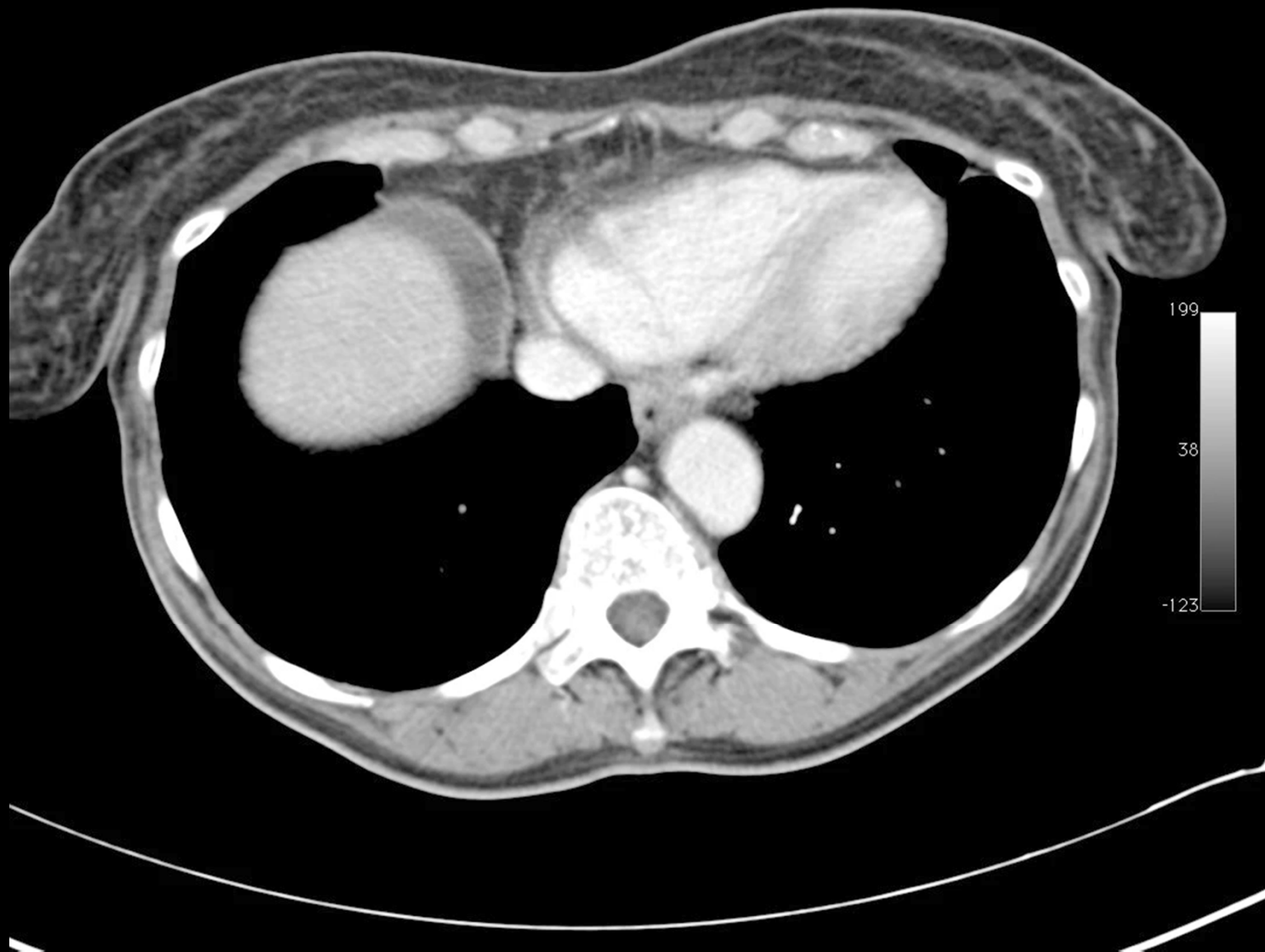
FEMME 65 A, D ABDOMIN CRAMPOÏDE < 3J, NAUSEES & VOMISSEMENTS, GB 7100 CRP 5. 3 MOIS POST-DPC



**FEMME 69 A, D+ ABD BRUTALE EPIGASTRE IRRADIANT
VERS HYPOCH & DOS, CONTINUE. GB 14000 CRP 5.7
CT RÉALISÉ 6H APRÈS DÉBUT SYMPTÔMES**



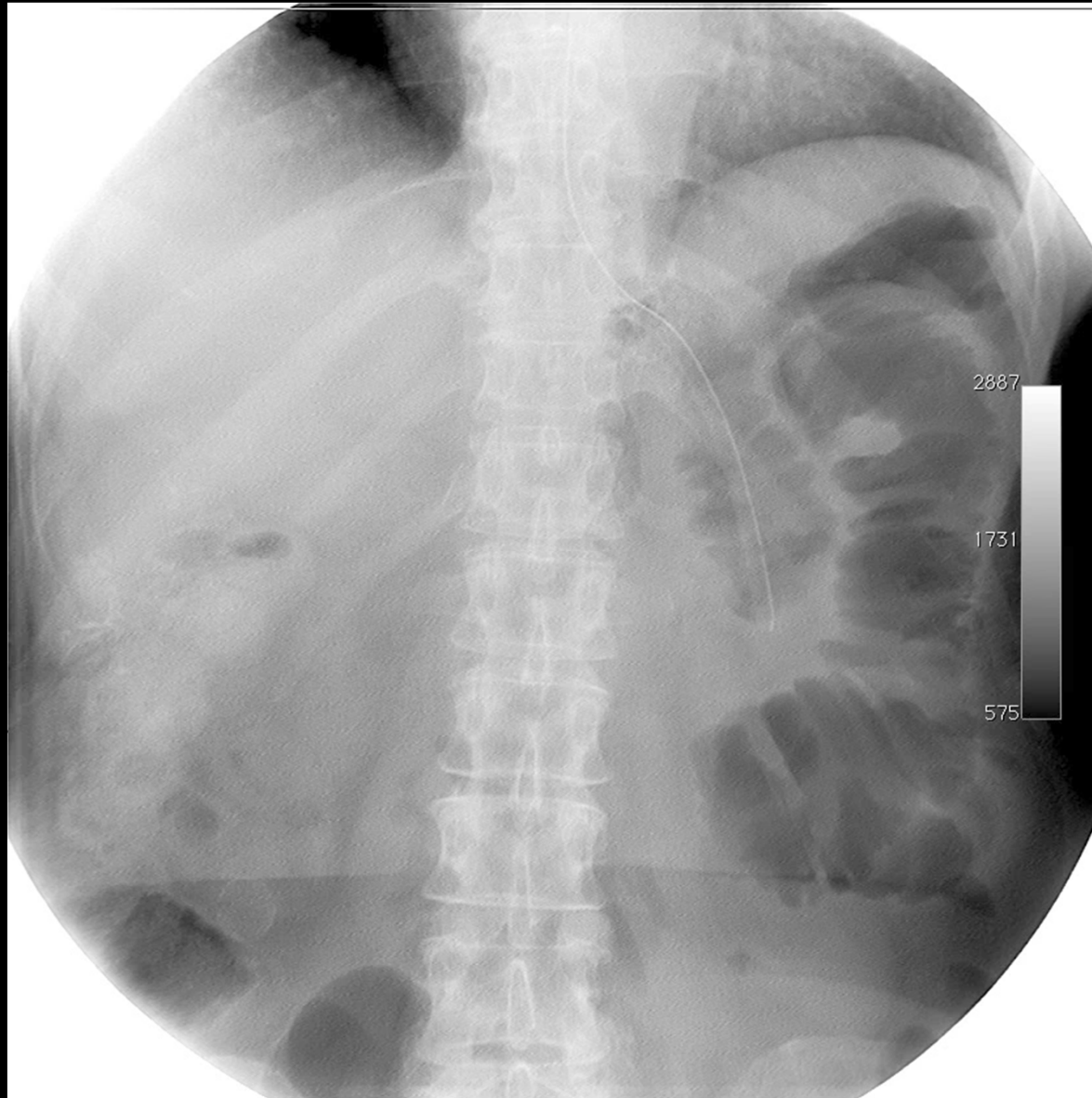
**FEMME 69 A, D+ ABD BRUTALE EPIGASTRE IRRADIANT
VERS HYPOCH & DOS,CONTINUE. GB 14000 CRP 5.7**



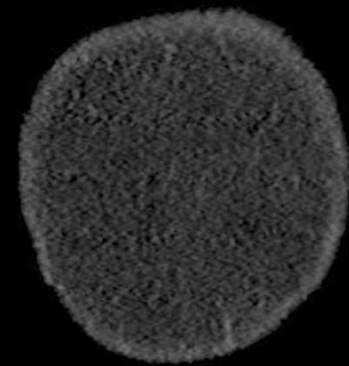
**FEMME 66 A, D+ ABDOM CRAMPOÏDES +
NAUS/VOMISSEMENTS < 2J, SIGNES D'IRRIT PÉRITON, GB
11700 CRP 2.4;. ATCDT BY-PASS**



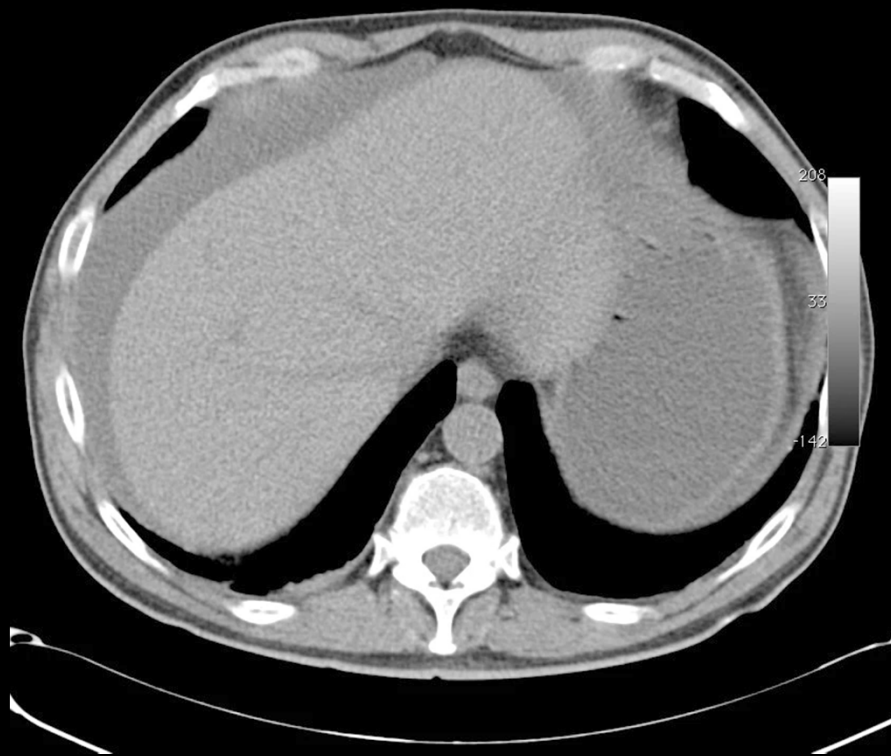
**FEMME 66 A, D+ ABDOM CRAMPOÏDES +
NAUS/VOMISSEMENTS < 2J, SIGNES D'IRRIT PÉRITON, GB
11700 CRP 2.4**



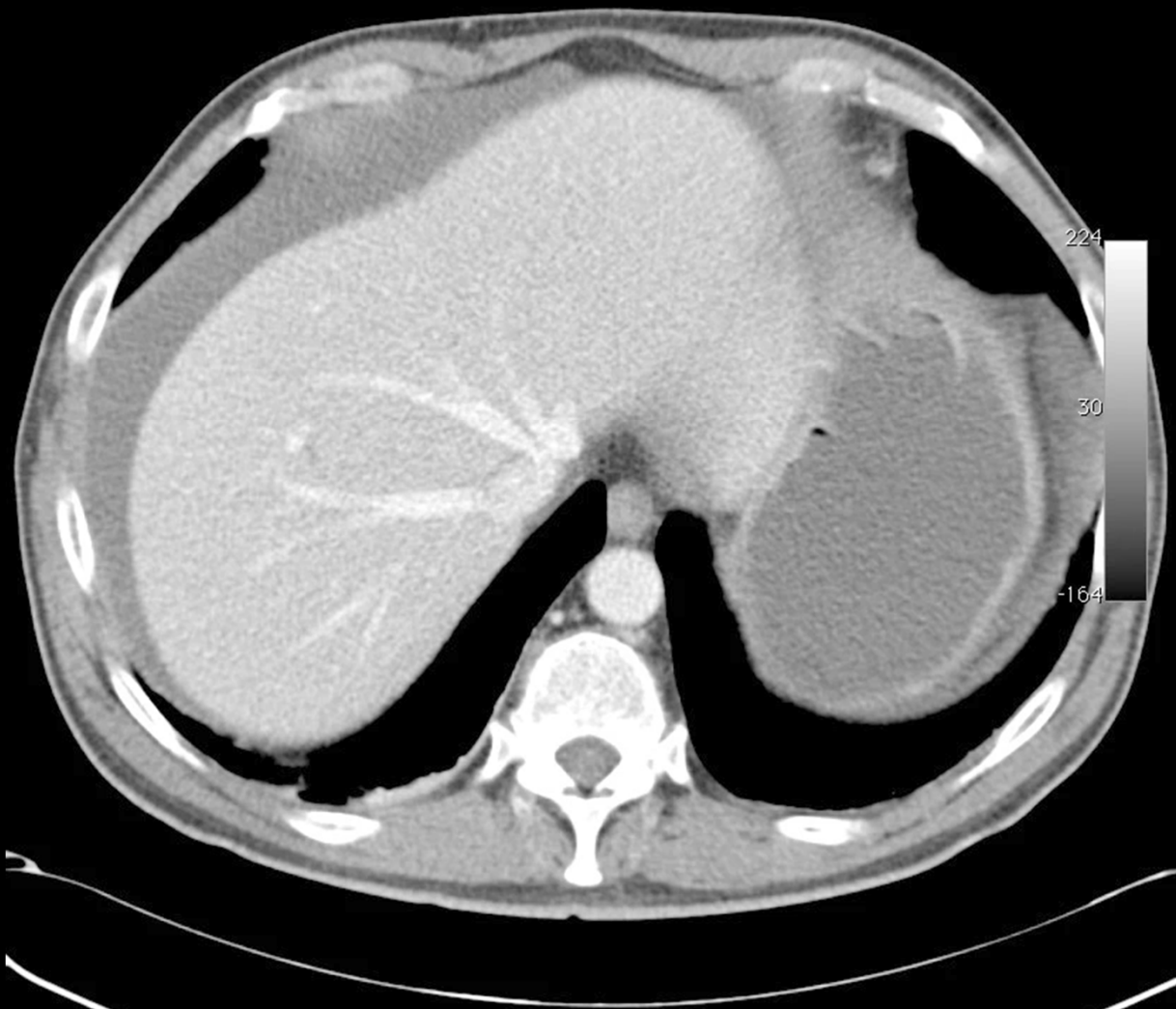
HOMME 75 A, D+ ABD DIFFUSE <8J, CONSTIPATION, PAS NAUS/VOMISSTS, CRP 57



**HOMME 61 A,D+ ÉPIGASTRIQUE TRANSFIXIANTE,PAS
NAUS/VOMISTS GB17300 CRP 0.54**



HOMME 61 A,D+ ÉPIGASTRIQUE TRANSFIXIANTE,PAS
NAUS/VOMISTS GB17300 CRP 0.54



**HOMME 61 A,D+ ÉPIGASTRIQUE TRANSFIXIANTE,PAS
NAUS/VOMISTS GB17300 CRP 0.54**



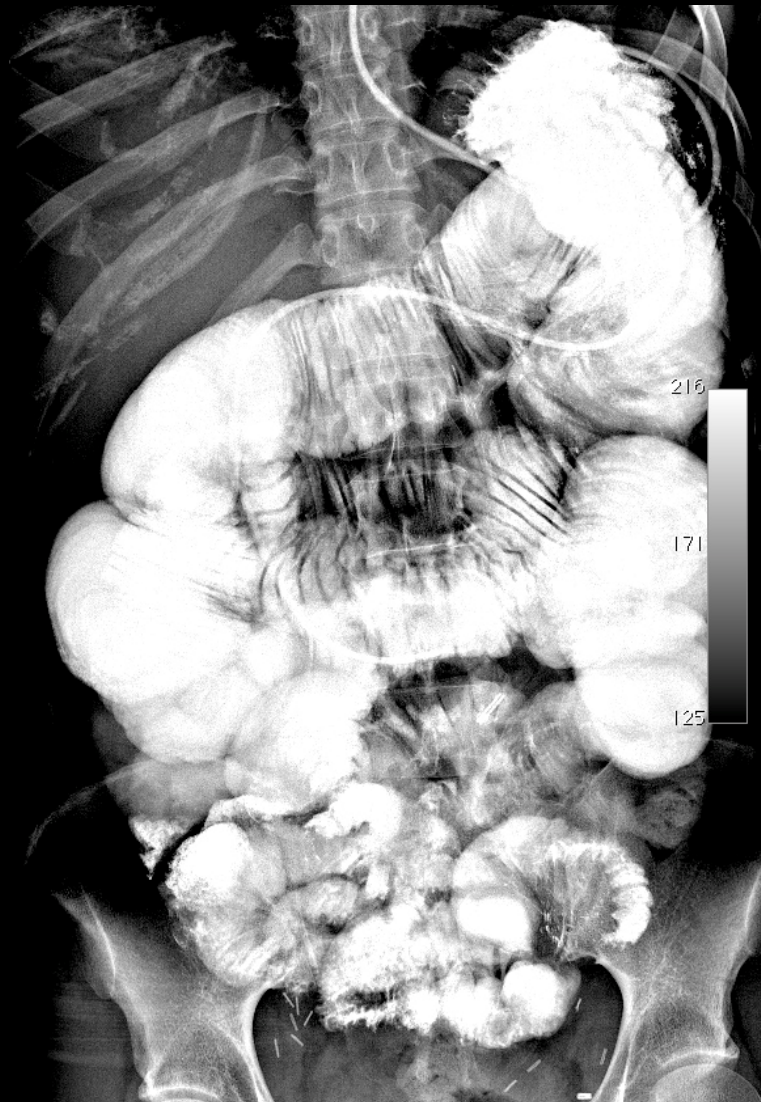
FEMME 27 A, D+ ABD CONTINUE <3J, NAUS/VOMISTS,
GB7400 CRP 78. HYSTÉRECT+OVARIECTOMIE BILAT 6
MOIS AVANT



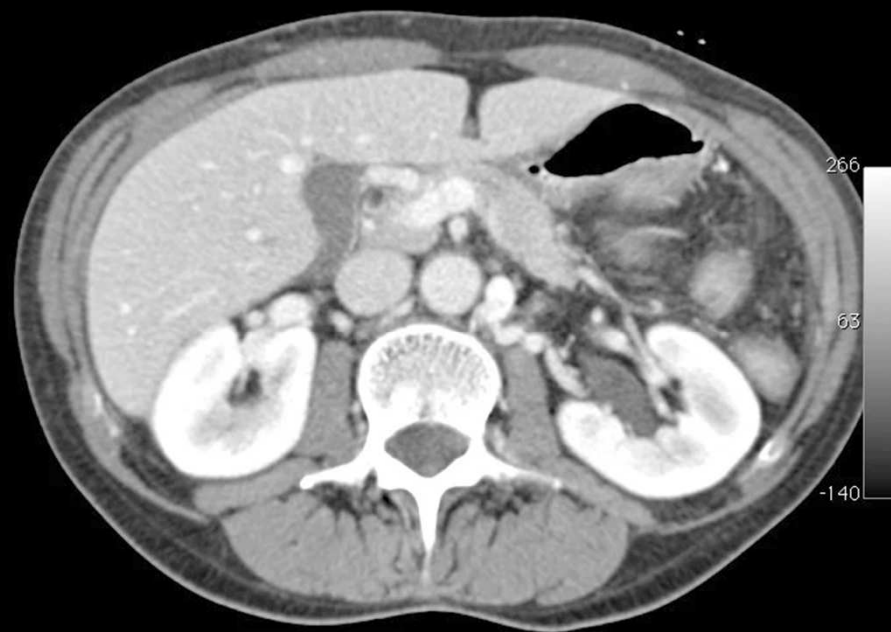
FEMME 27 A, D+ ABD CONTINUE <3J, NAUS/VOMISTS,
GB7400 CRP 78. HYSTÉRECT+OVARIECTOMIE BILAT 6
MOIS AVANT. ADHÉSIOLYSE 6J AVANT

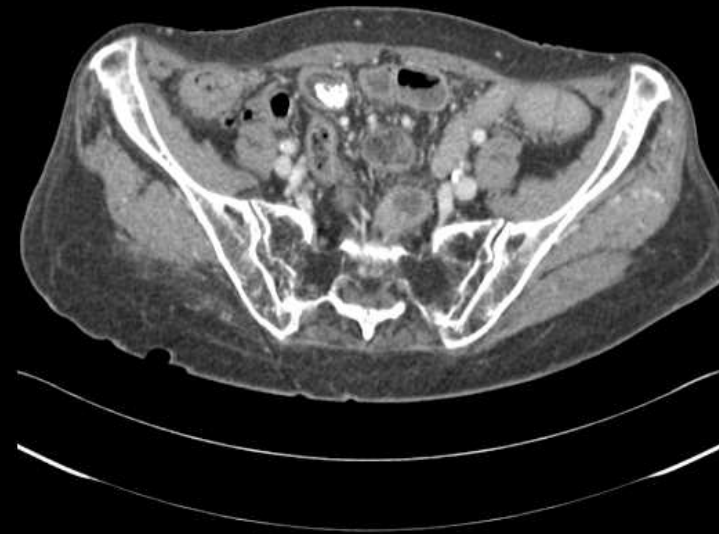
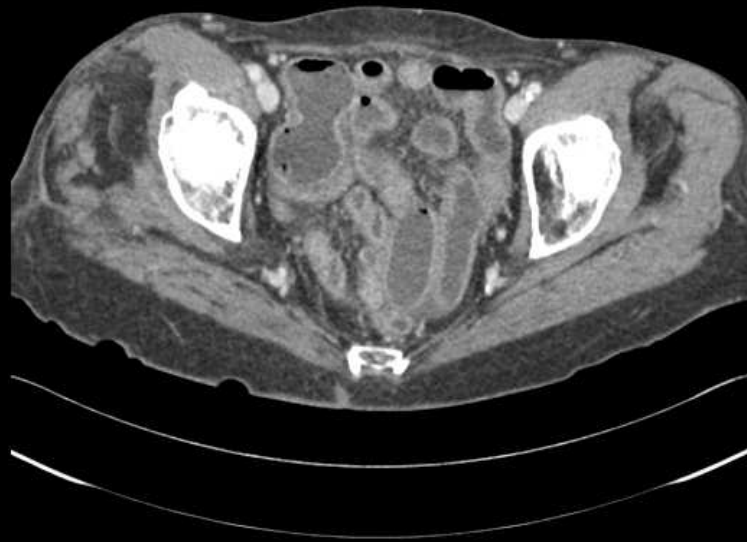


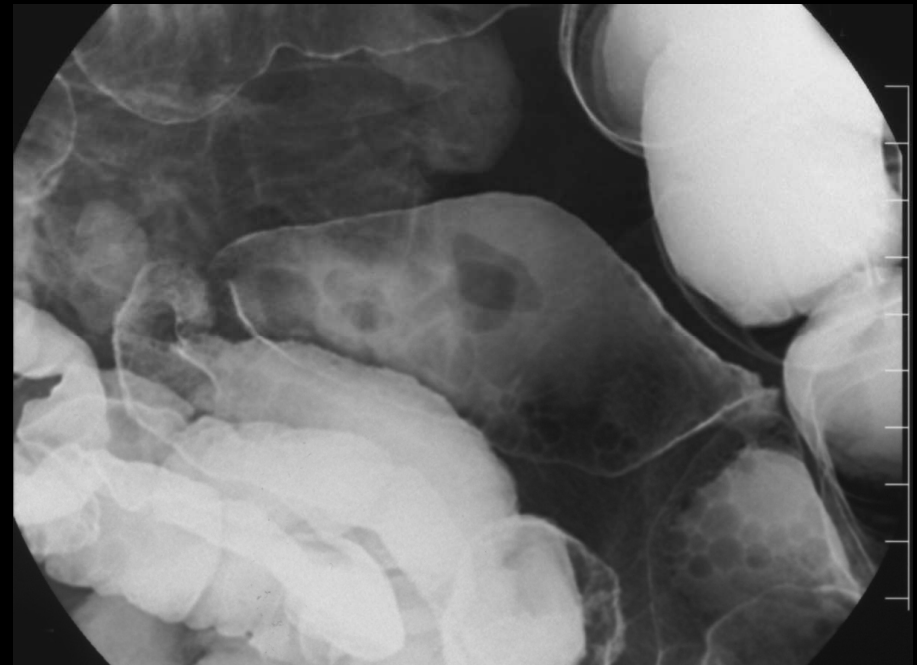
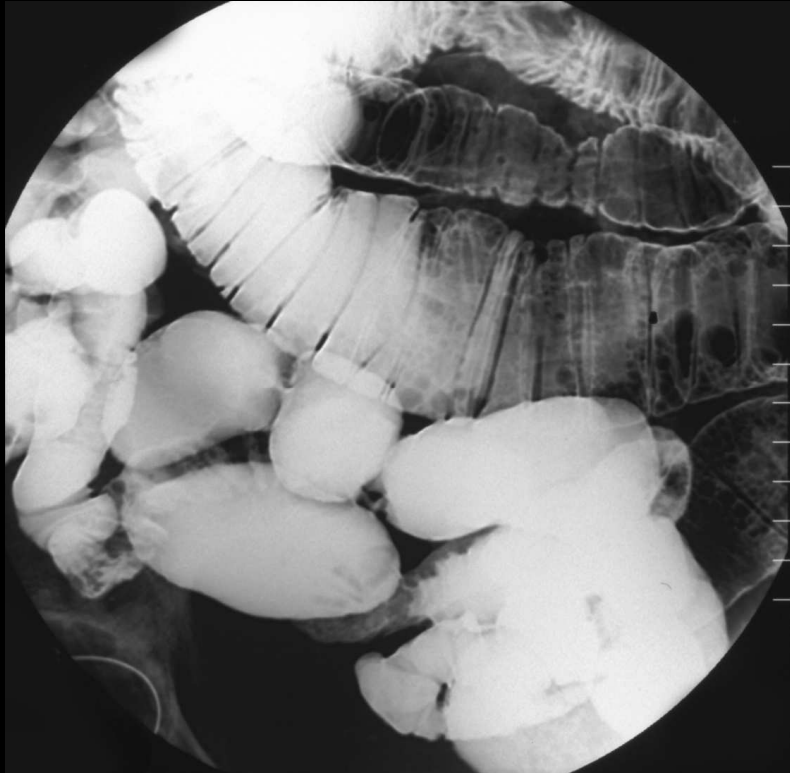
**FEMME 27 A, D+ ABD CONTINUE <3J, NAUS/VOMISTS,
GB7400 CRP 78. HYSTÉRECT+OVARIECTOMIE BILAT 6
MOIS AVANT. ADHÉSIOLYSE 6J AVANT**

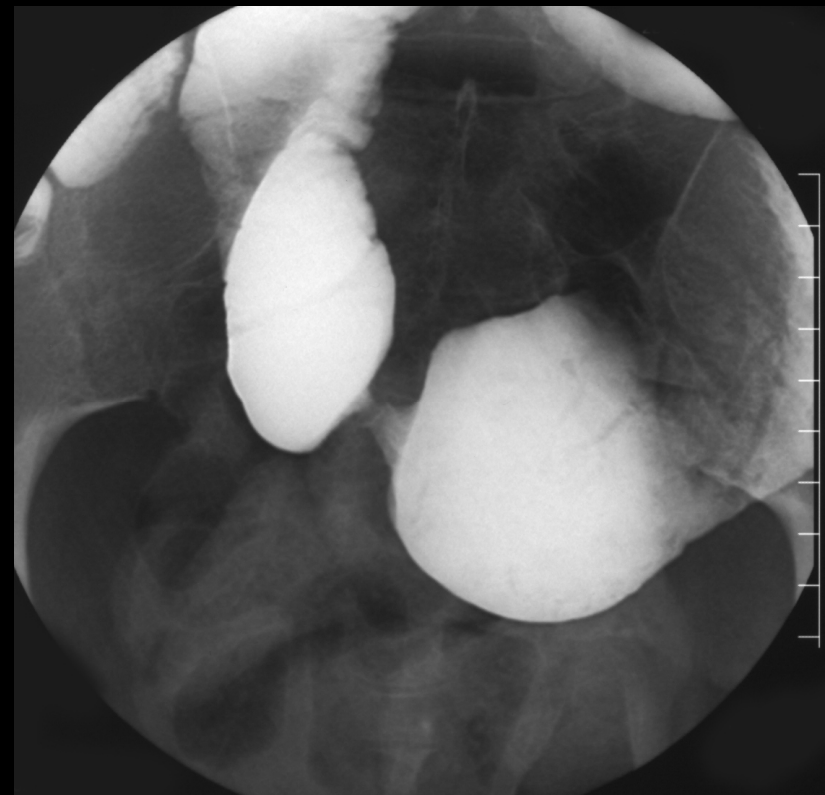
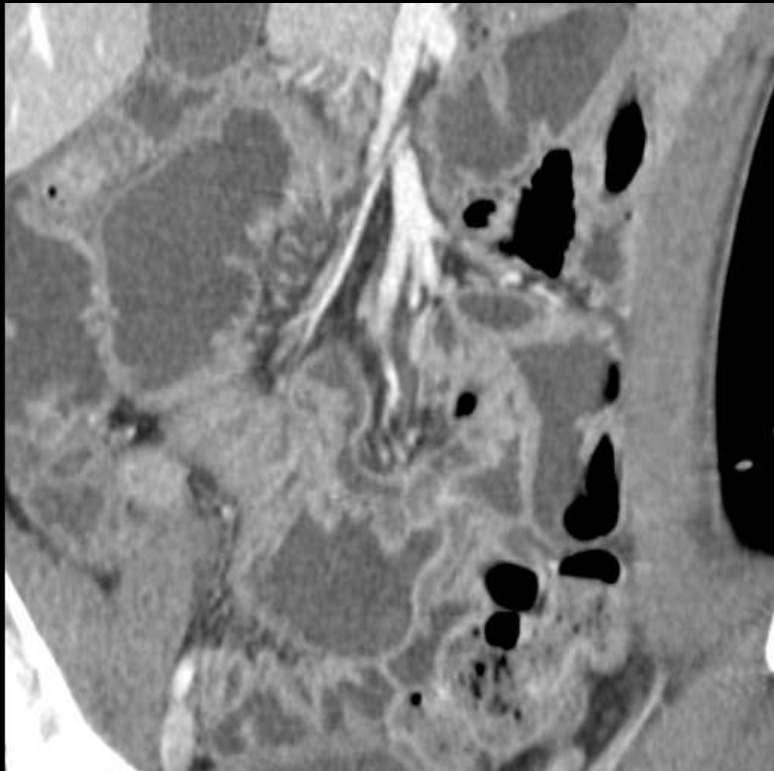


FEMME 58 A, D+ ABD AIGUE, NAUSÉE/VOMISSEMENTS









Bologna guidelines for diagnosis and management of adhesive small bowel obstruction (ASBO): 2013 update of the evidence-based guidelines from the world society of emergency surgery ASBO working group

Salomone Di Saverio^{1†}, Federico Coccolini⁵, Marica Galati¹, Nazareno Smerieri¹, Walter L Biffi⁴, Luca Ansaloni⁵, Gregorio Tugnoli¹, George C Velmahos⁷, Massimo Sartelli⁸, Cino Bendinelli¹³, Gustavo Pereira Fraga¹⁷, Michael D Kelly³, Frederick A Moore¹¹, Vincenzo Mandalà⁶, Stefano Mandalà⁶, Michele Masetti¹, Elio Jovine¹, Antonio D Pinna², Andrew B Peitzman¹⁶, Ari Leppaniemi¹⁵, Paul H Sugarbaker⁹, Harry Van Goor¹⁰, Ernest E Moore⁴, Johannes Jeekel¹² and Fausto Catena^{2,14†}

Abstract

Background: In 2013 Guidelines on diagnosis and management of ASBO have been revised and updated by the WSES Working Group on ASBO to develop current evidence-based algorithms and focus indications and safety of conservative treatment, timing of surgery and indications for laparoscopy.

Recommendations: In absence of signs of strangulation and history of persistent vomiting or combined CT-scan signs (free fluid, mesenteric edema, small-bowel feces sign, devascularization) patients with partial ASBO can be managed safely with NOM and tube decompression should be attempted. These patients are good candidates for Water-Soluble-Contrast-Medium (WSCM) with both diagnostic and therapeutic purposes. The radiologic appearance of WSCM in the colon within 24 hours from administration predicts resolution. WSCM maybe administered either orally or via NGT both immediately at admission or after failed conservative treatment for 48 hours. The use of WSCM is safe and reduces need for surgery, time to resolution and hospital stay.

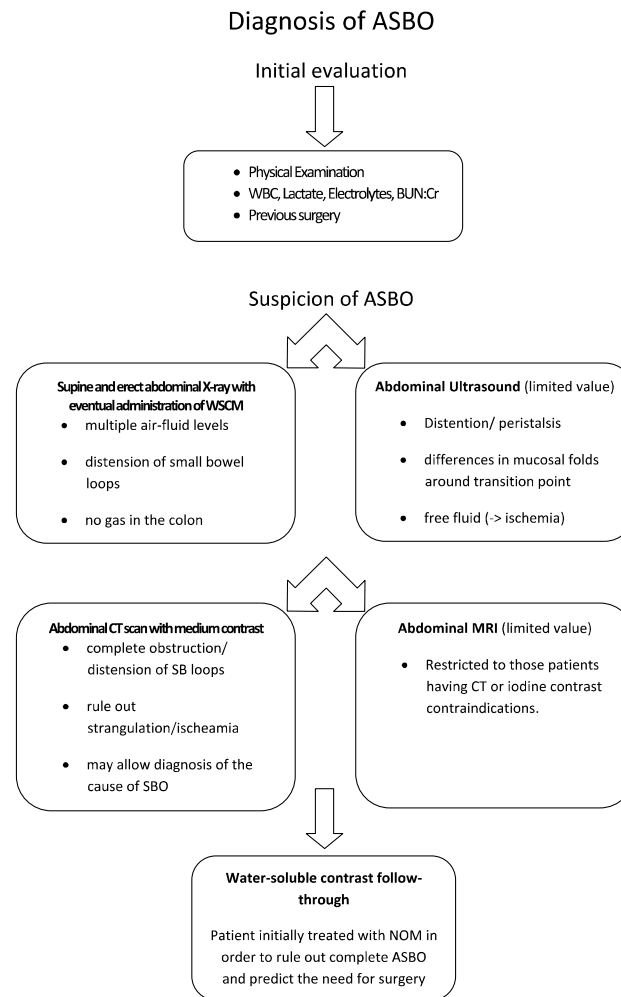
NOM, in absence of signs of strangulation or peritonitis, can be prolonged up to 72 hours. After 72 hours of NOM without resolution, surgery is recommended.

Patients treated non-operatively have shorter hospital stay, but higher recurrence rate and shorter time to re-admission, although the risk of new surgically treated episodes of ASBO is unchanged. Risk factors for recurrences are age <40 years and matted adhesions. WSCM does not decrease recurrence rates or recurrences needing surgery.

Open surgery is often used for strangulating ASBO as well as after failed conservative management. In selected patients and with appropriate skills, laparoscopic approach is advisable using open access technique. Access in left

(Continued on next page)

OBSTRUCTION INTESTINALE



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Treatment of ASBO

