

ER-GS Combine Meeting

Presenter : R2周光緯
Supervisor : VS連楚明

2012.08.15

Case

- 72 y/o male
- Past hx : 1. Ampulla of Vater cancer s/p whipple operation
2. Liver abscess with K.P.
3. GI bleeding
4. DM
- No drug allergy

2/45

ER visit

- E4V5M6
- TPR: 36.5 /52/22 BP:187/74 mmHg
- SpO2: 99%
- 檢傷主訴：腹痛，冒冷汗
- Triage: 2

3/45

History

- Periumbilical pain for 3 – 4 hours
- Intermittent pain
- Cold sweating
- No nausea/vomit/diarrhea
- No radiation to back
- No tarry stool

4/45

Physical Examination

- Cons: E4V5M6
- Chest: bil clear
- Abdomen: soft
periumbilical tenderness
no rebound pain
tympanic on percussion
- Extremity: freely

5/45

Impression

- Acute epigastric pain
r/o ileus

6/45

Order

- Bedside echo
- EKG
- KUB
- CBC
- PT/PTT
- BUN, Cr, GOT, TnI, T-bil, lipase
- N/S run 60 cc/hr
- Morphine 6 mg iv st

7/45

EKG

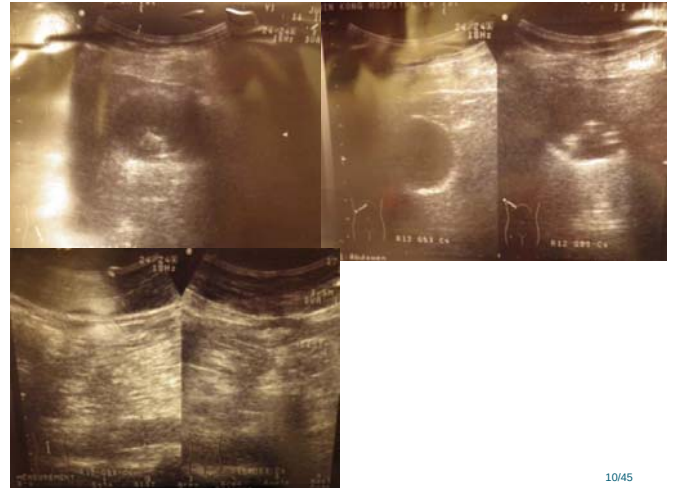


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KUB



9/45



10/45

Bedside echo

- GB stones
 - Distended GB
 - No Murphy's sign
 - No AAA/ascites/free air
 - Poor pancreatic window
- r/o biliary colic or CBD pathology
- consider CT scan

11/45

CBC/Platelet/DC		
WBC	9.9	X1000/ul
RBC	4.74	million
Hb	14.4	gm/dl
Ht	43.7	%
MCV	92.2	fl
MCH	30.4	pg
MCHC	33.0	%
RDW	14.8	%
Platelet	196	x1000/ul
Differential count		
Segmented Neutro.	80.5	%
Lymphocyte	16.0	%
Monocyte	2.9	%
Eosinophil	0.4	%
Basophil	0.2	%

PT	11.7	second
Normal control	10.5	second
INR	1.12	Ratio
APTT	35.4	second
Normal control	32.8	second

GOT(AST)	17	U/L
T-Bilirubin	0.4	mg/dL
BUN	21	mg/dL
Creatinine	0.9	mg/dL
eGFR	82.95	
Lipase	34	U/L
Troponin I	<0.01	ug/L

12/45



20:16

- NPO
- Abdominal CT with/without contrast
- f/u EKG, TnI
- B/C x II
- Invanz 1 g iv QD + st

13/45



22:38 EKG

- EKG : no interval change

Troponin I	<0.01	ug/L
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14/45



Abdominal CT

15/45



CT

- Cystic duct stone
- 之前s/p pancreatoduodectomy，不確定是否能排 ERCP
- →consult GS
arrange ERCP

16/45



GS visit

- Impression : r/o enteritis
ventral hernia
GB stones
- Plan : symptomatic treatment
may consult radiologist for image report

17/45



day2 01:30 (7hrs)

- Abdominal pain improved
- Still periumbilical tenderness
- Discuss with GS duty : 症狀都不在RUQ，不建議必要
做ERCP →DC ERCP

18/45

day2 14:40 (20hrs)

- Try diet
- No pain re-attack
- No vomit
- r/o GB colic
- 衛教&MBD
 - Iwell
 - Gascon
 - Primperan

19/45

day3 GI OPD

- Acid regurgitation sometimes
- No abdominal pain
- No nausea/ vomit
- Dx : Reflux esophagitis
GB stones
Ampulla vata cancer
- Tx : cospanon
transamin

20/45

2nd ER visit

- Day3, 20:03
- E4V5M6
- TPR: 37.5 /74/18 BP:158/71 mmHg
- SpO2: 96%
- 檢傷主訴：發燒/畏寒
- Triage: 3

21/45

History

- Just discharged due to GB stone
- Today fever at home 38°C+
- RUQ pain
- No nausea/vomit/diarrhea

22/45

Physical Examination

- Cons: E4V5M6
- Mild icteric sclera
- Chest: clear
- Abdomen: tenderness over RUQ
Murphy's sign (+)
rebound pain (-)
- Extremity: warm

23/45

Impression

- Suspect cholecystitis

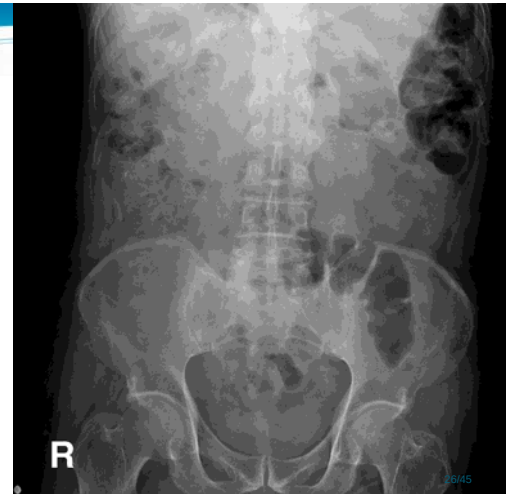
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Initial Order

- NPO
- CBC
- BCS/T-bil
- F/S (203)
- B/C x II
- D5S run 60 cc/hr
- EKG
- CXR, KUB
- Bedside echo

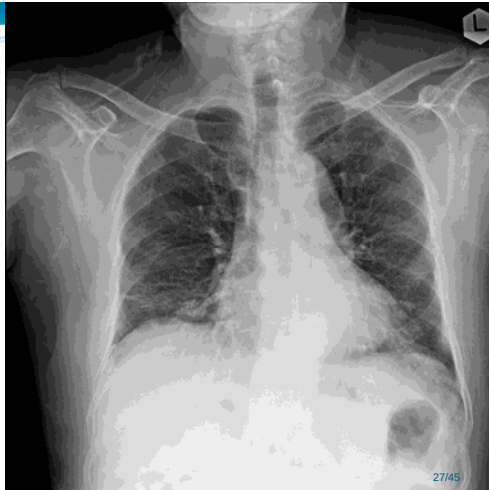
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KUB

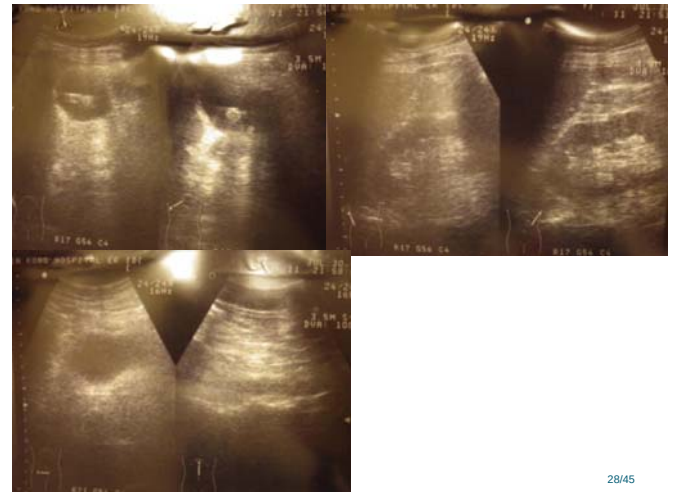


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CXR



27/45



28/45

Echo

- No obvious Murphy's sign
- GB stone (+)
- Equivocal GB wall thickening
- No ascites
- No AAA

29/45

CBC/Platelet/DC			Glucose		
WBC	9.5	X1000/ul	GOT(AST)	205	mg/dL
RBC	4.48	million	BUN	15	U/L
Hb	13.9	gm/dl	Creatinine	1.0	mg/dL
Ht	41.2	%	Na	138	meq/L
MCV	92.0	fl	K	3.7	meq/L
MCH	31.0	pg	eGFR	73.45	
MCHC	33.7	%	T-Bilirubin	0.8	mg/dL
RDW	14.7	%			
Platelet	169	x1000/ul			
Differential count					
Segmented Neutro.	79.6	%			
Lymphocyte	12.2	%			
Monocyte	7.7	%			
Eosinophil	0.3	%			
Basophil	0.2	%			

30/45

22:48 (2hrs)

- Still RUQ tenderness
- Consult GS → suggest CT

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Abdominal CT

32/45

CT

- CBD 0.3 cm
- GB dilate with peri-GB fat stranding
- → susp acute cholecystitis
- Consult GS and admission

33/45

Admission

- Arrange cholecystectomy
- day4 10:55
- Method : Open cholecystectomy
- GS VS 鄭益和

34/45

OP findings

- Multiple multifacet mixed pigmented sotnes about 0.3-1.2 cm in GB
- Severe edematous change of GB wall with empyema
- A 1.2 cm fascial defect at previous middle midline incision
→ incisional hernia

35/45

Hospital course

- day4 OP
- day6 Try water
- day7 Low fat, soft diet
- Day10 MBD

8/2 Lab data

WBC	9.1	x1000/uL
Differential count		
Segmented Neutro.	77.0	%
Lymphocyte	13.9	%
Monocyte	8.0	%
Eosinophil	1.0	%
Basophil	0.1	%
GOT(AST)	23	U/L
T-Bilirubin	0.6	mg/dL

36/45

Pathology

- Dx : Chronic cholecystitis with acute exacerbation
Cholelithiasis
- Findings : GB wall up to 0.6 cm in thickness,
Necrotic wall,
13 yellow brown pigment stones measuring
up to 1.0 cm

37/45

Final diagnosis

- 1. Acute calculous cholecystitis
- 2. Ampulla vata cancer s/p OP
- 3. DM
- 4. Ventral hernia

38/45



39/45

S/S for cholecystitis

Findings	Sensitivity (%)	Specificity (%)	LR ⁺	LR ⁻
Clinical				
Fever	35	80	1.5	0.9
Nausea	77	36	1.5	0.9
Emesis	71	53	1.5	0.6
RUQ pain	81	67	1.5	0.7
RUQ tenderness	77	54	1.6	0.4
Murphy sign	65	87	2.8	0.5
Laboratory				
Leukocyte count >10,000/mL	63	57	1.5	0.6
AP level >120 units/L	45	52	0.8	1.1
Elevated AST or alanine aminotransferase level	38	62	1.0	1.0
TB level >2 milligrams/dL	45	63	1.3	0.9
Elevated level of AP, AST, or TB	70	42	1.2	0.7

40/45

Diagnosis of cholecystitis

Table 82-9 Diagnostic Criteria for Acute Cholecystitis*

Local signs	Murphy sign Right upper quadrant mass, pain, tenderness
Systemic signs of inflammation, etc.	Fever Elevated C-reactive protein level Elevated white blood cell count
Imaging	Gallbladder wall >3 mm thick [†] Pericholecystic fluid Biliary duct diameter >7 mm [†]

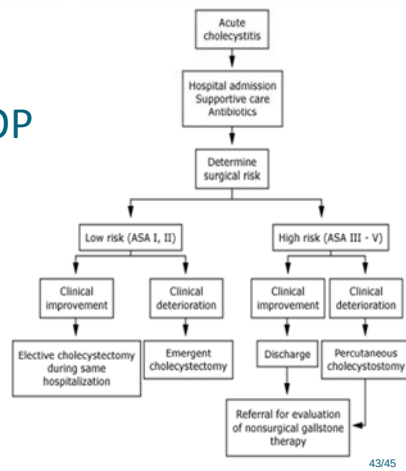
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Imaging

- Right upper quadrant **sonography** is the imaging modality of **choice** in the ED with a sensitivity and specificity of 94% and 78%
- Cholecystitis should be considered if the gallbladder wall is **>3 mm thick**
- CT can also allow diagnostic imaging of acute cholecystitis and may be useful when US results are equivocal

42/45

When to consider OP



THANKS FOR YOUR LISTENTING !

