ER-GS Combine Meeting

Presenter : R3周光緯
Supervisor :VS連楚明

2013.05.15

Case

- 82 y/o male
- Past hx : 1. PPU s/p OP
- Drug allergy: nil

ER visit

- Date: DAY1 , 14:18
- E4V5M6
- TPR: 36.1 /75/18 BP:149/72 mmHg
- SpO2: 100%
- 檢傷主訴：胃痛
- Triage: 3

History

- Epigastric pain for 2 days
  - Location: epiagastric
  - Quality: dull pain, intermittent, no migration or radiation
  - Quantity: VAS (6)
  - Onset: gradual onset
  - Precipitation factor: nil
  - Exacerbating factor: nil
  - Relieving factor: nil
  - Association: nausea, no vomit/diarrhea/fever/tarry stool

Physical Examination

- Cons: E4V5M6
- Neck: supple
- Chest: bil clear
- Abdomen: soft & distended
  - Normoactive bowel sound
  - Epigastric tenderness
  - No muscle guarding
  - No rebound tenderness
  - No RLQ tenderness
- Extremity: warm

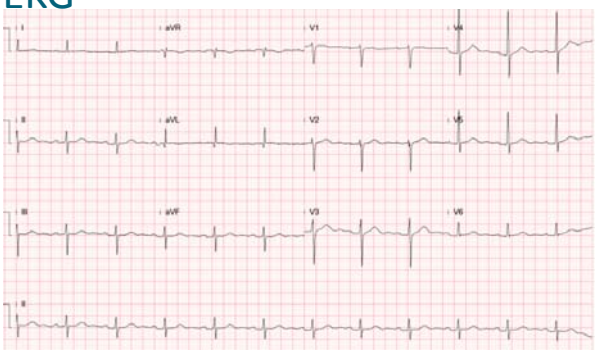
Impression

- Abdominal pain
  - r/o gastritis
  - r/o ileus
  - r/o pancreatitis

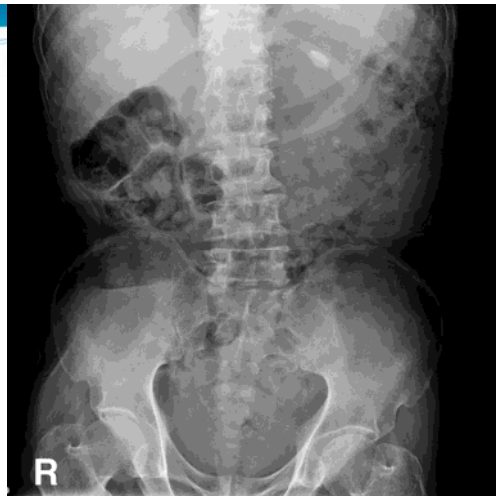
Order

- NPO
- EKG
- KUB
- Hb, WBC/DC, plt
- F/S (132)
- BUN, Cr, GOT, lipase, T-bil , Troponin I, Na, K
- N/S run 60 cc/hr
- Promeran 1 amp iv st
- Bain ½ amp iv st

EKG



KUB



DAY 1

Hb	15.0	gm/dl
WBC	8.7	x1000/ul
Differential count		
Segmented Neutro.	72.9	%
Lymphocyte	15.7	%
Monocyte	10.4	%
Eosinophil	0.8	%
Basophil	0.2	%
Platelet	240	x1000/ul

GOT(AST)	20	U/L
T-Bilirubin	0.8	mg/dL
Creatinine	1.11	mg/dL
eGFR	63.42	
Na	138	meq/L
K	3.6	meq/L
Lipase	57	U/L
Troponin I	0.017	ug/L

15:29 (1 hr later)

- 病人現在都不痛
- No pain/tenderness
- No nausea/vomit

- MBD
- Vital sign : 36.4/74/14 156/77 mmHg
  - Tinten
  - Senokot
  - Primperan

2nd ER visit (next day)

- Date: DAY2 , 22:57
- E4V5M6
- TPR: 35.0 /84/16 BP:121/65 mmHg
- SpO2: 99%
- 檢傷主訴：腹部漲痛、尿不出來
- Triage: 3

History

- Abdominal pain for 2-3 days
  - Location: epiagastric → diffuse pain
  - Association: no nausea/vomit/diarrhea/fever
- DAY1 來急診，回去仍痛
- OP hx : 胃手術

Physical Examination

- Cons: E4V5M6
- Neck: supple
- Chest: bil clear
- Abdomen: soft & distended
  hyperactive bowel sound
  periumbilical tenderness
  muscle guarding (+)
  No rebound tenderness
- Extremity: warm

Impression

- Abdominal pain, cause ?
  - 二次回診
- Acute urinary retention

Order

- NPO
- Bedside echo
- Hb, WBC/DC
- Cr
- Blood culture x 1
- N/S run 60 cc/hr
- Promeran 1 amp iv st
- Bain ½ amp iv st

Bedside echo

- AUR (+)
- No hydronephrosis
- → on Foley , U/A, U/C
- Local ileus over epigastric area
- Do CT to r/o T-colon lesion or small bowel ischemia
- → Arrange abd CT

DAY 3

WBC	10.4	x1000/ul
Differential count		
Segmented Neutro.	82.0	%
Lymphocyte	6.5	%
Monocyte	4.0	%
Eosinophil	0.0	%
Basophil	0.0	%
Atypical lymphocyte	0.0	%
Band	7.5	%
Metamyelocyte	0.0	%

Creatinine	1.23	mg/dL
eGFR	56.34	

U/A

Sediment		
RBC	1-2	/HPF
WBC	8-15	/HPF
Epithelial cell	3-5	/HPF
Cast	Not Found	/LPF
.cast-amount	-	
Crystal	Am.phos	/HPF
.Cry-amount	++	
Bacteria	+	
Others	Not Found	

Abdominal CT

Abdominal CT

- Free air (+)
- Much dirty ascites over duodenum and pericolic area
- Multiple renal cysts

- r/o hollow organ perforation
- →consult GS

GS visit

- Arrange surgery
- Pre-OP
- Antibiotics with Cefmetazole
- NG decompression
- Send p't to OR on call

Operation (DAY 3)

- Pre op Dx :
  - Perforated peptic ulcer
- Post op Dx :
  - Perforated duodenal ulcer s/p
- OP method :
  - Gastrojejunostomy + truncal vagotomy + feeding jejunostomy + drainage gastrostomy
- VS鄭

OP findings (day 3)

- OP findings : 1. A 2 cm perforation at duodenal bulb resulted in 2/3 circle of bulb dishescience and severe reginal gastric and duodenal wall thickening
  2. About 300 cc purulent ascites
  3. H.p (+)

Hospital course

- Admission to ICU after sugery
- Bilateral pneumonia episode
- Transfer to general ward on DAY 17
- Now still under treatment in hospital

- B/C & U/C : No bacteria

Pathology

- Dx : Nerve, labeled "Vagus nerve", truncal vagotomy
  --- Confirmed
  Intestine, small duodenum, gastrojejunostomy and biopsy
  --- Ulcer
- No evidence of malignancy is found.

Final Diagnosis

- 1. Duodenal ulcer perforation s/p Gastrojejunostomy + truncal vagotomy + feeding jejunostomy + drainage gastrostomy
- 2. History of PPU s/p OP

Discussion

Perforated Ulcers

Epidemiology

- Duodenum 60%
- Antrum/ pylorus 20%
- Body 20%

Early diagnosis

- 1st phase (< 2hrs of onset)
- 2nd phase (2 ~ 12 hrs)
- 3rd phase (> 12hrs)

1st Phase

- Sudden onset of severe pain, sometimes producing collapse or even syncope.
- Usually epigastric at onset, but it quickly becomes generalized.
- Tachycardia, weak pulse, cool extremities
- Radiate to the top of the right shoulder
- Abdominal rigidity

2nd Phase

- Pain may lessen
- Board-like rigidity
- Liver dullness on percussion ↓
- RLQ tenderness may develop from fluid moving down the gutter

3rd Phase

- Abdominal pain, tenderness, and rigidity may be less evident
- Temperature elevation and hypovolemia
- Preoperative delay greater than 12 hours increase the risk of morbidity and mortality

Imaging

- 10 ~ 20 % of patients with a perforated DU will not have free air
- If free air is found in plain film, no additional diagnostic studies are necessary

- Abominal CT (with oral contrast)
- UGI series

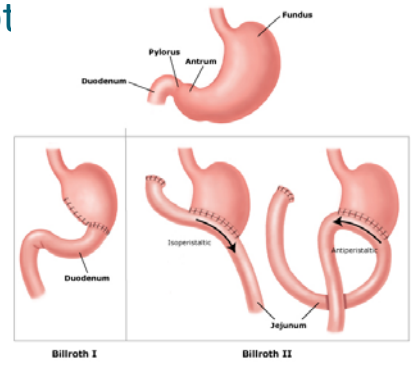
Initial resuscitation

- NG tube
- IV Fluid
- IV Proton pump inhibitor
- Broad-spectrum antibiotics
  - Cover *Enterobacteriaceae*

Sugical Intervention

- Emergent operation and closure with a piece of omentum is the standard of care
- Delay diagnosis → delay surgery
  → poorer prognosis
- Some will seal their perforated ulcers without operation

Billrot



Surgical Methods

- Simple closure
- Truncal vagotomy with pyloroplasty
- Subtotal gastrectomy + Billroth reconstructions
- Laparoscopic approaches

Other Complications of PUD

- Ulcer bleeding
- Ulcer penetration
- Gastric outlet obstruction

The common cause of ulcers

- It is essential to carefully search for the presence of H. pylori and for NSAID or aspirin use

Differential diagnosis

- Severe colic
- Pulmonary infarction
- Acute pancreatitis
- Intestinal obstruction
- Aortic dissection
- Abdominal aorta aneurysm rupture
- Ischemia bowel
- Peritonitis from other cause


THANKS FOR YOUR LISTENTING !