GS – ER Combined Meeting

R2周光緯
Supervisor VS連楚明
GS方躍霖
2012/03/14

Patient Profile

- 77 y/o F 黃XX
- 101/02/xx 09:27
- Sent by 119
- T/P/R: 35.5/62/18 BP: 148/54 mmHg
  SpO2: 100 %
- E2V1M4
- 檢傷主訴: 病人來診為低血糖
- Triage I

History

- Conscious disturbance noted
- 最近常常低血糖，昨晚吃比較少
- DM s/p OHA treatment
- No fever

- EMT : F/S 30+ → 有給糖粉

Past history

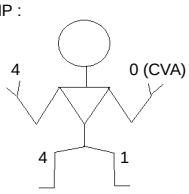
- DM
- HTN
- Old CVA with bed-ridden
- 96.01 L't femoral neck fx s/p OP
- 98.03 L't breast CA s/p OP T2N3M0, stage IIIc
- 98.05 R't femoral intertrochanteric fx s/p OP

- No drug allery

Physical examination

- Conscious : E1V1M4
- Neck: Supple
- Chest: clear breathing sound
  RHB
- Abdomen : soft, no guarding
- Extremities: warm and dry

MP :



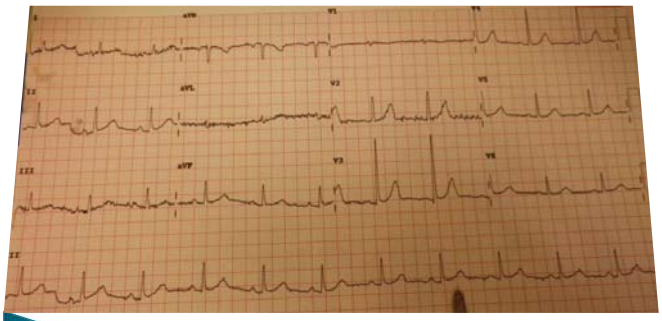
Impression

- Hypoglycemia
  - r/o occult infection

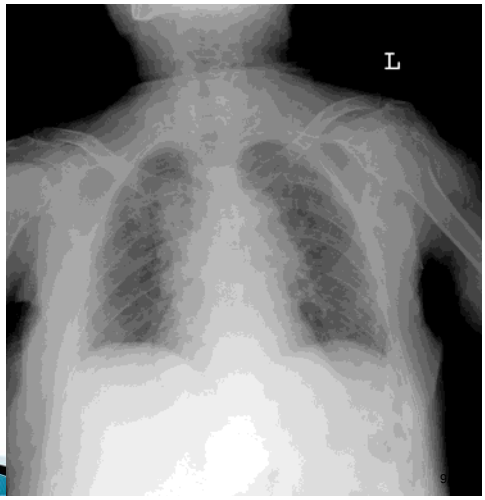
Initial order

- F/S (38)
- D50W 4 amp iv
- D10W run 60 cc/hr
- CBC
- Panel I
- U/A, U/C
- EKG
- CXR
- F/S Q1H x 3

EKG



CXR



Lab

Hb	8.7	gm/dl
WBC	15.2	x1000/ul
Differential count	**********	
Segmented Neutro.	88.9	%
Lymphocyte	6.6	%
Monocyte	4.5	%
Eosinophil	0.0	%
Basophil	0.0	%
Platelet	405	x1000/ul

Glucose	<40	mg/dL
GOT(AST)	54	U/L
BUN	29	mg/dL
Creatinine	1.0	mg/dL
Na	124	meq/L
K	3.9	meq/L
eGFR	53.76	

Followed Sugar

- 10:00
  - After glucose, F/S 331
  - Con's E4V5M6
- 11:00 12:00
  240 189 → IV lock

U/A

Sediment	**********	
RBC	3-5	/HPF
WBC	16-30	/HPF
Epithelial cell	3-5	/HPF
Cast	Not Found	/LPF
.cast-amount	-	
Crystal	Not Found	/HPF
.Cry-amount	-	
Bacteria	+++	
Others	Not Found	

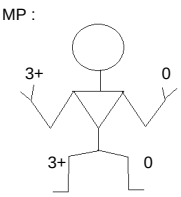
- Cefazolin + Gentamycin

MID-STREAM URINE CULTURE:
Colony count : >100000
Organism:
1. Escherichia coli

The next day

- Dx : 1. UTI
  2. DM with hypoglycemia event
  3. Old CVA
  4. Breast cancer hx
- 精神比較好了，但兒子表示病人原本可用助行器行走，入院後即左側無力
  E4VaM6
- Do CT to r/o new stroke

MP :



CT

- Consult neuro
  → Give bokey & arrange brain MRI
  treat UTI and hyponatremia

MRI

- Neurologist's opinion :
  bil MCA stenosis
  → keep bokey
- MRI的lesion很小，不會造成意識惡化
- 請排EEG，f/u Na, sugar

Day 2 18:00

- Vital sign 36.4/68/18　103/58 mmHg

Day 3 00:15

- Vital sign HR 65 , BP 55/37 mmHg
- Con's E2V1M1
- Bedside echo :
  - Collapse heart
  - Ascites (+)
  - r/o AAA rupture
  - r/o Aorta dissection

Order

- 備pRBC 8u, FFP 12u, Plt 24u
- On 2nd IV line
- N/S 500 cc challenge
- O2 NRM 15 L/min
- Aorta CT
- On CVC / Foley

Aorta CT

- Massive ascites
- Pneumoperitoneum

- → contult GS for emergent OP

Consult GS

- Arrange OP
- Send p't to OR
- Admission to ICU post OP

- GS VS 方

OP findings

- Laparotomy , subtotal gastrectomy + B-II reconstruction
  1. A large perforation hole (4x4 cm) at 1st portion of duodenum
  2. Much turbid ascites and food debris
  3. Fibrin coating , much
  4. Relatively poor status of tissue

Pathology

- DIAGNOSIS:
  1. Intestine, small, duodenum, proximal, partial resection
     --- Chronic peptic ulcer, perforated
     A perforated ulcer measuring 2.5 cm in diameter.
  2. Stomach, distal subtotal gastrectomy
     --- Chronic atrophic gastritis
  3. Omentum, omentectomy
     --- Peritoneal reaction

ICU course

- Ceftriaxone + Metronidazole
- Dopamine use

- Oligouria → acute on chronic renal insufficiency
- Cr → 3.4
- Septic shock
- Pul. edema, metabolic acidosis

Post OP day 4

- Sign DNR
- BP drop → expired

Final diagnosis

1. Chronic duodenal ulcer perforation with pneumoperitoneum s/p subtotal gastrectomy + B-II reconstruction
2. Septic shock
3. DM / hypoglycemia episode
4. Hypertension
5. CVA
6. Breast CA
7. Expired

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

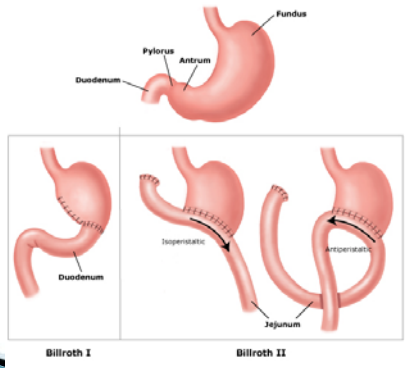
- NG tube
- IV Fluid
- IV Proton pump inhibitor
- Broad-spectrum antibiotics
  - Cover *Enterobacteriaceae*

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

Billroth reconstructions



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