case conference
ER-GS
103/5/14
報告者：鄭凱文/
指導者：連楚明

Patient Profile

- 75Y/o ♂
- 2014/xx/xx 11:05
- E4V5M6
- T/P/R=35.6/125/20;　BP = 76/38mmHg
- SpO2 = 78%
- 檢傷主訴：病人主訴為眩暈
- Triage = Ⅰ

Present Illness

- C.C: dizziness & general weakness for 2 days
- Vomiting once yesterday → 脖子酸
- no tarry stool
- no fever
- no chest/abd. pain

Past History

- NKDA
- HTN, DM, BPH
- no CAD

Physical Examination

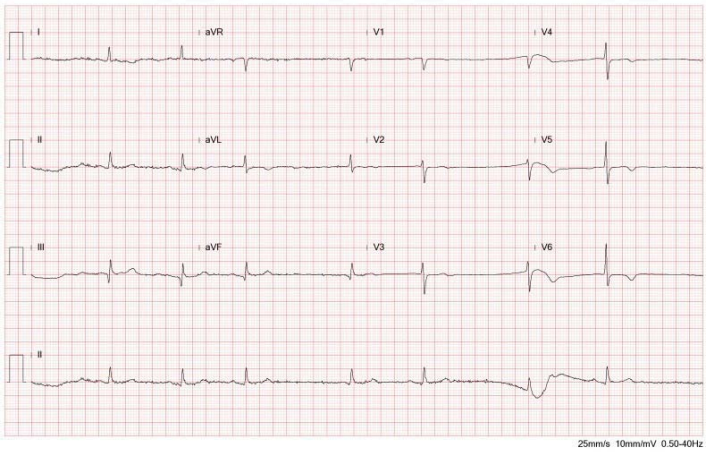
- Consciousness: Clear, alert;
- HENNT: supple; mild pale;
- CHEST: BS bil. Clear; RHBs;
- Abd.: soft, round; no tenderness;

Impression

- Hypotension, shock, cause?

Initial order (day 1, 11:10)

- NS 300mL iv challange st, then run 60mL/hr
- CBC, D/C, Plt
- Bun, Crea., AST, CK, CK-MB, Troponin I
- ABG_6
- Lactate
- PT, aPTT
- CXR
- EKG
- B/C* I
- on EKG monitor



Lab data

HCT	32	%PCV
HB	10.9	g/dL
PH	7.404	
PCO2	32.3	mmHg
PO2	76	mmHg
BE	-5	mmol/L
HCO3	20.2	mmol/L
TCO2	21	mmol/L
SO2	95	%
NA	136	mmol/L
K	5.2	mmol/L

Day 1, 11:45 (HR 42; 73/37mmHg)

- NS 200mL iv challange st
- F/S (213)
- consult CV
- Dopamine 10mL/hr
- Kalimate 3pk po st

Bedside echo

- GB wall thickening; echo-Murphy's sign;
- no ascites
- no visible liver lesion
- no pericardial effusion
- IVC engorgement; collapse < 50%
- No B-line

CBC/Platelet/DC	*****			-
.WBC	21.3	X1000/ul	*H	3.8-10
.RBC	3.79	million	*L	4.5-5.7
.Hb	11.5	gm/dl	*L	13-18
.Ht	33.8	%	*L	40-54
.MCV	89.2	fl		81-98
.MCH	30.3	pg		27-32
.MCHC	34	%		32-36
.RDW	13.4	%		11.5-14.5
.Platelet	219	x1000/ul		140-450
Differential count	****			-
.Segmented Neutro.	78	%	*H	37-75
.Lymphocyte	7	%	*L	20-55
.Monocyte	6	%		4-10
.Eosinophil	0	%		0-5
.Basophil	0.5	%		0-2
.Atypical lymphocyte	0	%		0-3
.Band	8	%	*H	0-5
.Metamyelocyte	0.5	%	*H	0-0
.Myelocyte	0	%		0-0

AST	17	U/L		5-35
CPK	305	U/L	*H	30-223
BUN	40	mg/dL	*H	7-25
Crea.	2.46	mg/dL	*H	0.5-1.3
.eGFR	25.78			-
Troponin I	0.09	ug/L		0-0.5
CK-MB	1	ng/mL		0.6-6.3
Lactate	37	mg/dL	*H	4.5-19.8

PT	12.3	second	9.4-12.5
.Normal control	10.8	second	
.INR	1.14	Ratio	0.8-1.2
APTT	30.4	second	28.6-38.6
.Normal control	33.4	second	
.APTT ratio	0.91		

Day 1, 12:45

- Chst + Abd. CT w/o contrast
- B/C * Ⅰ (2nd)
- Flumarin 1g iv q8h+st
- Dopamine run 5~40mL/hr (keep SBP ≧ 90mmHg)
- on CVC
- portable CXR s/p CVC
- ScVBG$_3$

CT 初步判讀

- fat stranding over bil. Kidney, R't > L't
- bladder wall thicking
- r/o right APN

day 1, 14:12

- Pre-cath preparement
- sign permit
- send p't to cath. Room for TPM on call
- on critical

day 1, 14:28 (HR 46; 88/26mmHg)

- N/s 300mL iv challange jst
- Levophed 2amp in D5W250mL run 10mL/hr

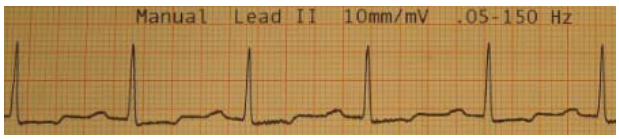
day 1, 14:40

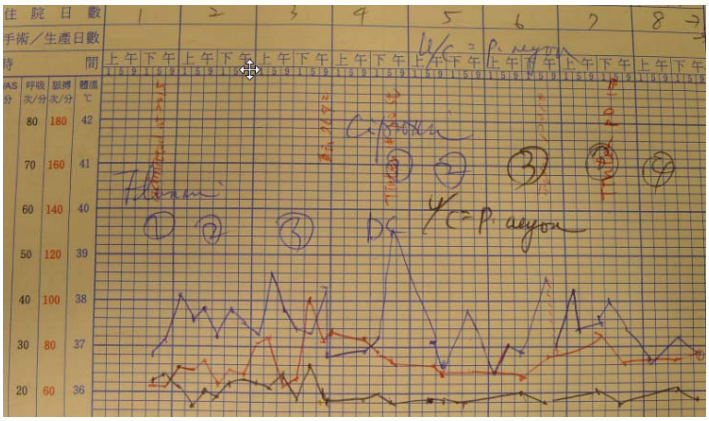
- O_2 N/C 4L/min
- hold Levophed (∵SBP 159mmHg)
- 14:59 U/A & U/C
- 15:29 on Foley (∵ 尿不出來)

day 1, 16:18

(36/72/16; 144/60mmHg)

- 會 Infection→ 建議
  續 Flumarin 、驗
  CRP$_{(24.72)}$ 、 PSA$_{(68.08)}$ 、 Cortisol;
  （ for RLL nodule ）抽 Cryptococcus Ag 、 CEA;
- DC TPM (∵HR↑ ，穩定， NSR ；已聯絡 CV)
- 18:20 admit to AICU-02



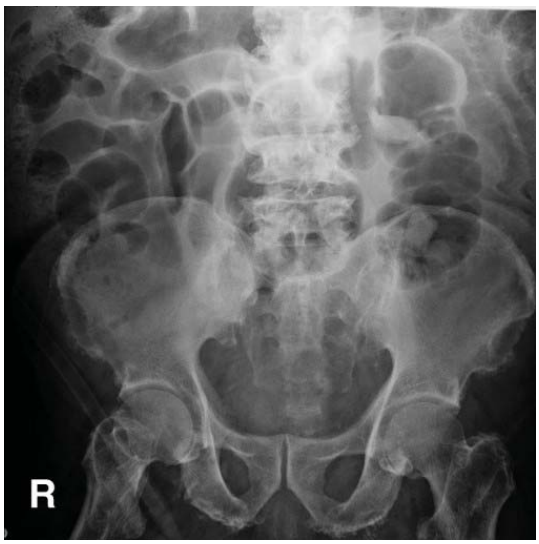


After admission

- day 2: KUB
- day 3: 轉 7692
- day 4: KUB; consult GU & GI
- day 5: PES → one large and deep ulcer in the ant. Wall of bulb
- day 9: prostate ultrasound
- day 10: KUB

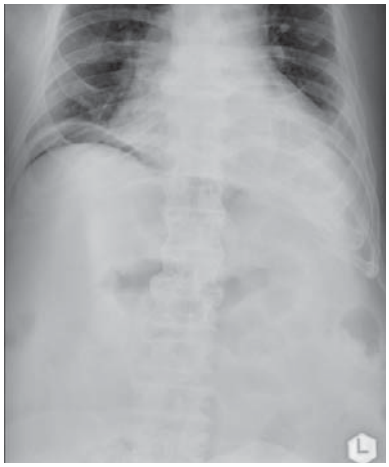
- day 2

day4



- day 10

- day 10: KUB → free air??? → standing AXR



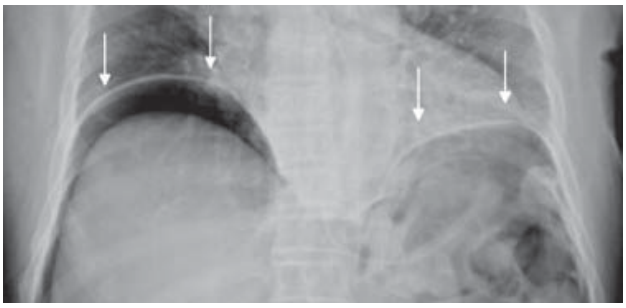
- day 10: standing AXR → free air
  → OP (hemigastrectomy + B-II anastomosis + feeding jejunostomy) ．術後入 SICU
  day 17: 轉病房

Discussion:
inexpensive ways to detect pneumoperitonium

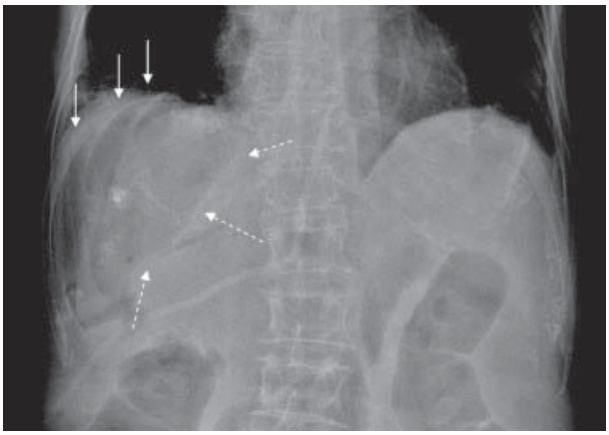
Chiu YH, Chen JD, Tiu CM, et al. Reappraisal of radiographic signs of pneumoperitoneum at emergency department. Am J Emerg Med. 2009;27(3):320-7.

Chen SC, Yen ZS, Wang HP, Lin FY, Hsu CY, Chen WJ. Ultrasonography is superior to plain radiography in the diagnosis of pneumoperitoneum. Br J Surg. 2002;89(3):351-4.

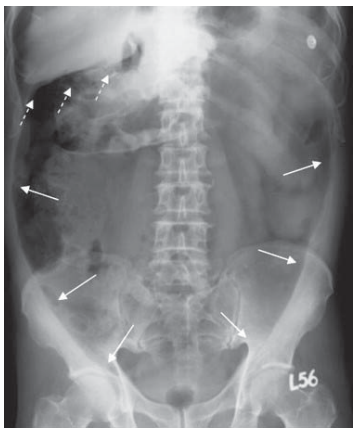
bilateral subphrenic radiolucency (arrows)



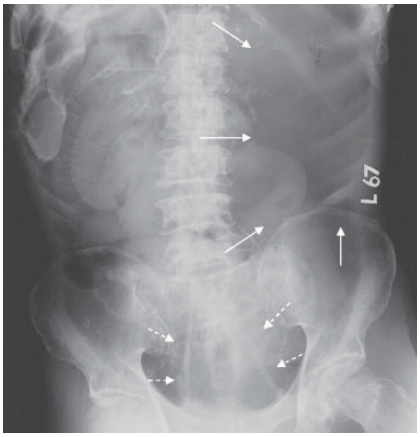
hyperlucent liver sign (broken arrows)
dolphin sign (straight arrows)



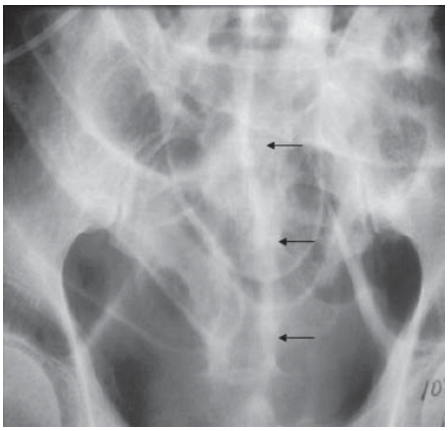
hepatic edge sign (broken arrows)
football sign (straight arrows)



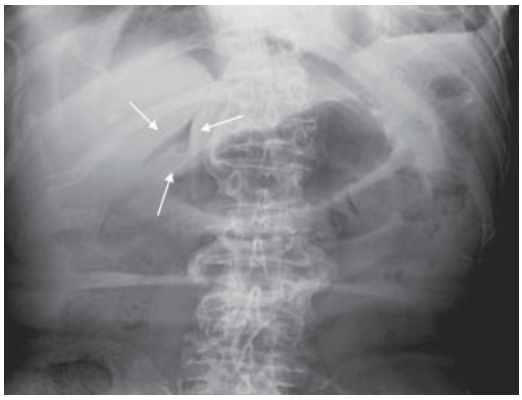
inverted V sign (broken arrows)
focal radiolucency (straight arrows)



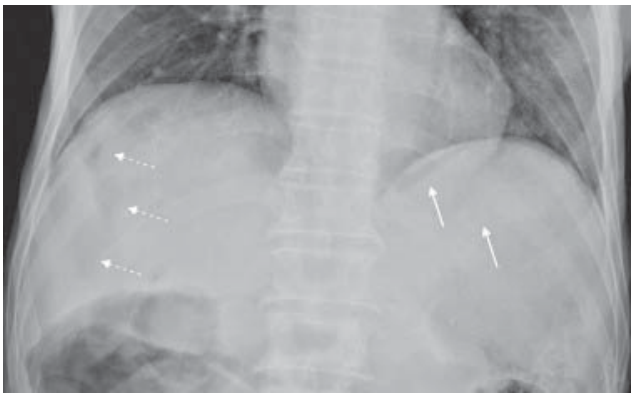
urachus sign (arrows)



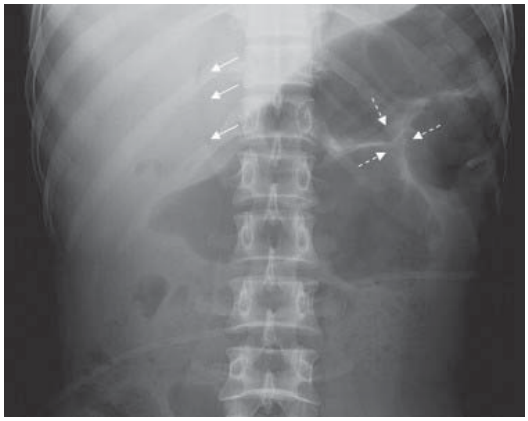
doge cap sign (arrows)



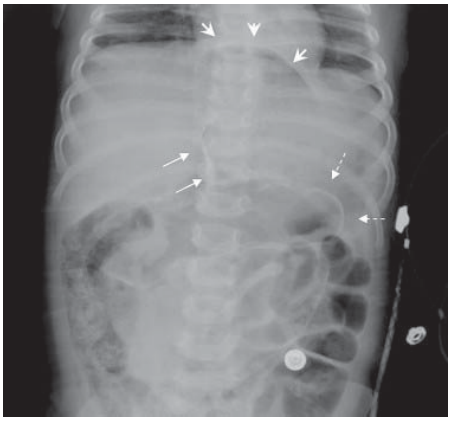
anterior superior oval sign (broken arrows)
left anterior superior oval sign (straight arrows)



triangle sign (broken arrows)
fissure for ligament teres sign (straight arrows)



Rigler sign (broken arrows)
falciform ligament sign (straight arrows)
cupola sign (arrowheads)



Ultrasonography is superior to plain radiography in the diagnosis of pneumoperitoneum

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Background: The aim of this study was to compare plain radiography with abdominal ultrasonography in the detection of pneumoperitoneum.
Methods: A total of 188 patients with suspected hollow organ perforation were studied. All patients had abdominal ultrasonography, upright chest radiography and left lateral decubitus abdominal radiography examinations. The sensitivity, specificity, positive and negative predictive value, and accuracy of chest and abdominal radiography were compared with that of abdominal ultrasonography.
Results: One hundred and seventy-eight patients underwent laparotomy; 170 patients had hollow organ perforation, five patients had perforated appendicitis and three had acute cholecystitis. In the diagnosis of pneumoperitoneum, ultrasonography had improved sensitivity (92 *versus* 78 per cent), negative predictive value (39 *versus* 20 per cent) and accuracy (88 *versus* 76 per cent), and similar specificity (both 53 per cent) and positive predictive value (95 *versus* 94 per cent) compared with plain radiography.
Conclusion: Ultrasonography is more sensitive than plain radiography in the diagnosis of pneumoperitoneum.

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(A) Subphrenic free air (arrow)
(B) A small collection of free air (arrow) within the peritoneal fluid is recognized in the subphrenic space.

A

B