DOCTOR’S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
3 JAN 09 (22.15) - Plasil 1 amp IV stat - Pethidine 50 mg IV prn for severe pain q 6 hr	

DOCTOR’S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
3 JAN 09 (23.00) notify BT 36.5 c PR 96 bpm BP 90/60 mmHg —repeat→ 90/60 mmHg มีN/V ปวดจุกแน่นท้อง - NPO - Ranitidine 50 mg IV q 8 hr - Retain NG ต่อลงถุง	

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
3 JAN 09 (23.00) - NSS 1,000 cc IV free flow Keep BP $\geq$ 90/60 mmHg If BP ไม่ขึ้น load 200 cc If BP $\geq$ 90/60 เปลี่ยน IV เป็น 5%D/N/2 1,000 cc IV 30 cc/hr -Observe อาการต่อ รคส.	

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
3 JAN 09 (23.30) - BP 80/50 mmHg PR 92 bpm Load NSS เดิมให้ครบ 1,000 cc - Keep BP ≥ 90/60 mmHg รคส.	

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
4 JAN 09 (00.20) notify BP 80/60 mmHg PR 100 bpm RR 36/min -Dopamine (2:1) IV 10 mcd/min tritate q 30 min ทีละ 2 mcd/min - ลด rate NSS 1,000 cc IV 80 cc/hr - If not void in 6 hr after admit pls notify รคส.	4 JAN 09 - Ceftriaxone 2 g IV OD รคส.

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
4 JAN 09 (01.15) notify BP 80/50 mmHg หอบเหนื่อย O2 sat (RA) 93% - Ventolin (1:3) NB สลับ Berodual (1:3) NB prn q 2 hr -ลด rate NSS 1,000 cc IV 40 cc/hr รคส.	

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL	
ORDER FOR ONE DAY	**ORDER FOR CONTINUATION**
4 JAN 09 (01.15) -Dopamine (2:1) IV 15 mcd/min tritate q 30 min ทีละ 5 mcd/min If Dopamine max 30 mcd/min -if BP < 90/60 mmHg pls notify -if BP > 90/60 mmHg give lasix 40 mg IV stat รคส.	

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
4 JAN 09 (03.00) notify กระสับกระส่าย ปลายมือปลายเท้าม่วง DTX stat 12 mg% - 50% glucose IV 50 cc/hr stat รคส.	

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
4 JAN 09 - CPR - 50%glucose 50 cc IV - Adrenaline 11 amp IV - Atropine 2 amp IV - NaHCO3 50 ml IV - On ETT No.7.5 depth 18 cm - DEATH 04.15 น → หยุด CPR	

PRINCIPAL DIAGNOSIS
SEPTIC SHOCK
COMORBIDITY
CIRRHOTIC LIVER
COMPLICATION
HYPOGLYCEMIC COMA IN NON DIABETIC PATIENT

CONSIDERATIONS

- Charcot's triad consists of fever, RUQ pain, and jaundice. It is reported in up to 50-70% of patients with cholangitis.
- Recent studies believe it is more likely to be present in 15-20% of patients.

emedicine from WebMD
Medscape's Continually Updated Clinical Reference
6,500 Articles | 10,000 Physician Contributors

CONSIDERATIONS

- Fever is present in approximately 90% of cases.
- Abdominal pain and jaundice is thought to occur in 70% and 60% of patients, respectively.
- Patients present with altered mental status 10-20% of the time and hypotension approximately 30% of the time.

CONSIDERATIONS

- Many patients with ascending cholangitis do not present with the classic signs and symptoms.
- With septic shock, the diagnosis can be missed in up to 25% of patients.

emedicine from WebMD
Medscape's Continually Updated Clinical Reference
6,500 Articles | 10,000 Physician Contributors

CONSIDERATIONS

- Consider cholangitis in any patient who appears septic, especially in patients who are elderly, jaundiced, or who have abdominal pain.
- A Hx of abdominal pain or symptoms of gallbladder colic may be a clue to the diagnosis.

emedicine from WebMD
Medscape's Continually Updated Clinical Reference
6,500 Articles | 10,000 Physician Contributors

PITFALLS

- History taking and physical examination
- Evidence for diagnosis
- Delayed diagnosis
- Need more initial investigation for Dx and Tx
- Delayed antibiotics administration
- Need closed monitoring
- Should obtain appropriate culture before ATB administration
- Need source control
- Vasopressor dose adjustment
- Steroids administration
- Appropriate refer
- Medical record

CASE PRESENTATION II

PRINCIPAL DIAGNOSIS
CONGESTIVE HEART FAILURE
COMORBIDITY
ACUTE RENAL FAILURE ANEMIA, UNSPECIFIED
COMPLICATION
-

MANAGEMENT IN CONGESTIVE HEART FAILURE

- Confirm diagnosis <Framingham criteria>
- Indication for hospital admission
- Evaluate
  - Functional class
  - Volume status
  - Precipitating factor
- LAB : CXR, EKG, Echocardiogram, CBC, UA, BUN, Cr,
  Electrolyte, LFT

MANAGEMENT IN CONGESTIVE HEART FAILURE

Salt restriction < 3 g /day

Absolute bed rest

Oxygenation

Diuretic and/or nitrate in fluid retention

Control blood pressure and dyslipidemia

MANAGEMENT IN CONGESTIVE HEART FAILURE

Medical treatment

- Diuretic in fluid retention (pulmonary congestion, ascites, pitting edema)
  - HCTZ (Cr<2mg/dl)
  - Furosemide (max dose 400 mg/day)
  - Spinorolactone in recent or recurrent HF in NYHA Fc III-IV
  - Mornitoring : BW OD (decrease 0.5-1kg/day)

MANAGEMENT IN CONGESTIVE HEART FAILURE

Medical treatment

- ACEI is 1st line for all stage of HF
    - 2nd line is ARB
    - 3rd line is hydralazine with nitrate

- Beta-blocker in NYHA FC II-IV with stable condition

MANAGEMENT IN RENAL FAILURE

Identify type:

- **Pre renal ARF**
- **Intrinsic ARF**
- **Post renal ARF**

Investigation:

- **UA**
- **Urine osmolarity**
- **Urine indices – UPCI, Urine Na, FENa.**

	Pre renal	**ATN**
UPCI	>40	<20
Urine Na	<20	>40
FENa (%)	<1	>1

MANAGEMENT IN RENAL FAILURE

Supportive treatment

- Volume status > Balance I/O

  (Pulmonary congestion Vs ischemia)

  - Role of furosemide
  - Role of dopamine

MANAGEMENT IN RENAL FAILURE

Supportive treatment

- Hyperkalemia
  - Restrict K+ take : food and drug
  - Role of Dopamine
  - Kayexalate, Kalimate
  - Dialysis (Indication AEIOU)
- Metabolic acidosis
  - Role of $NaHCO_3$ in HCO_3^- < 15 mEq/L

PRINCIPAL DISEASES

GENERALIZED EDEMA

HISTORY

CC: บวมทั้งตัว หายใจเหนื่อย 1 สัปดาห์ก่อนมา

PI : 2 สัปดาห์ PTA บ่นไม่มีแรง ญาติพาไปให้น้ำเกลือที่คลินิก และรับยามากินที่บ้าน อยู่บ้านรับประทานอาหารได้

1 สัปดาห์ PTA บวมทั้งตัว ใบหน้าและเปลือกตาบวม หายใจเร็วเหนื่อย ญาติให้ประวัติปัสสาวะบ่อย ออกดี

PH: ปฏิเสธโรคประจำตัวและแพ้ยา

SYSTEM	NORMAL	ABNORMAL
General appearance	√	
HEENT		√ ตาบวมขึ้นประมาณ 1 wk
CVS	√	
Respiratory		√ หอบเหนื่อยขึ้นประมาณ 1 wk
Abdomen	√	
Genitourinary	√	
Skin	√	
Trunk& spine& Extremities		√ แขนขาบวมขึ้น
CNS	√	

PHYSICAL EXAMINATION

V/S : BP 180/90 mmHg PR 68 bpm

BT 36.2 ° c RR 28/min

%SpO2 RA : 81% on canula 3 LPM → 99%

HEENT : puffy faced, neck vein engorged .

HEART : PSM gr II at apex, radiated to axilla.

LUNG : Fine crepitation at both lungs.

ABDOMEN : Soft, no guarding and mild distention, ascites .

EXT : Pitting edema 3+.

NERVOUS : Motor gr III at least all.

OTHER : ถามตอบรู้เรื่อง/ ถามชื่อตอบได้

PERTINENT FINDINGS

FROM HISTORY AND PHYSICAL EXAM
GENERALIZED EDEMA
PROGRESSIVE DYSPNEA
PULMONATY EDEMA
PANSYSTOLIC MURMUR GRADE III AT APEX
NECK VEIN ENGORGED
ASCITES

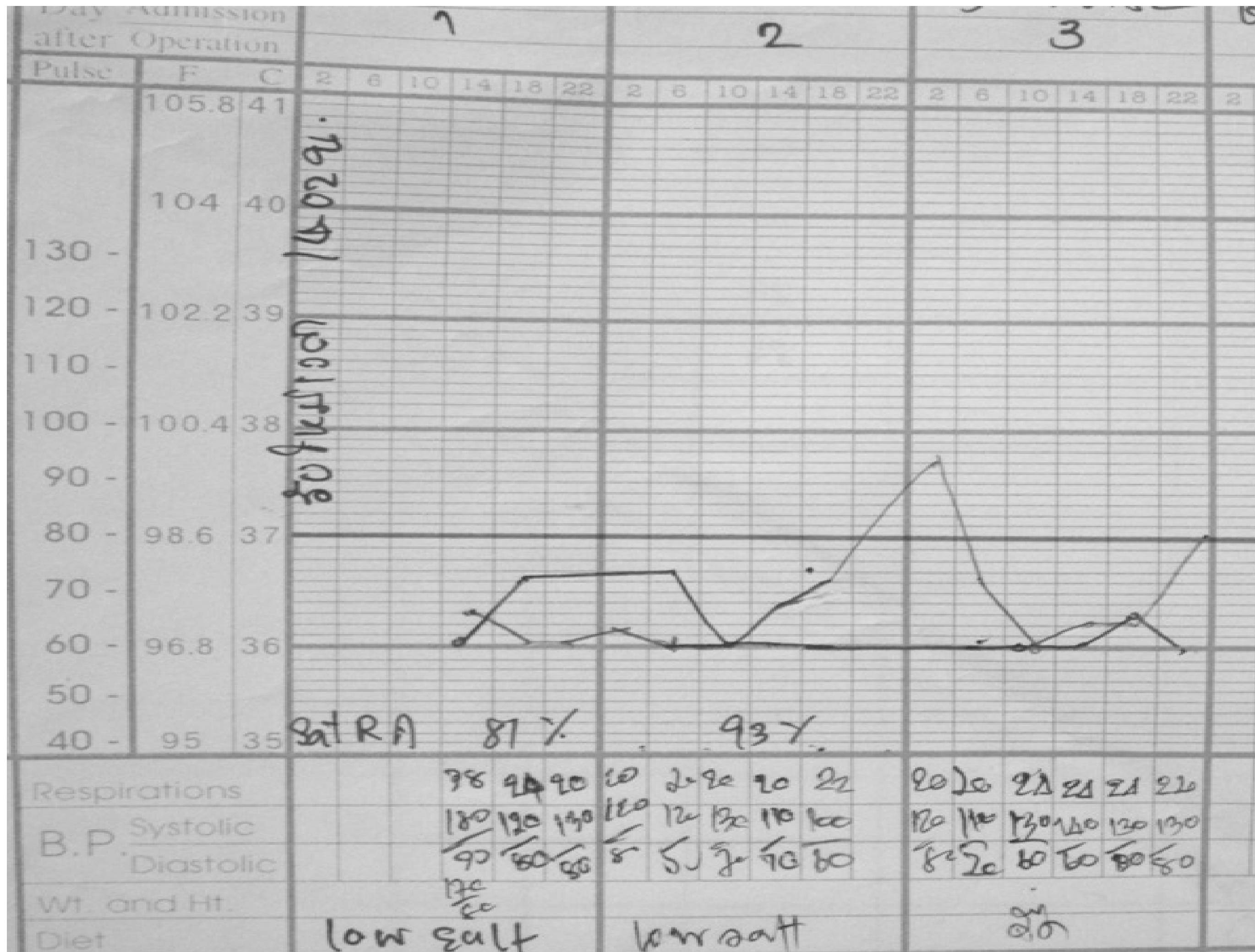
DIAGNOSIS

CONGESTIVE HEART FAILURE WITH VOLUME OVERLOAD
R/O ACUTE RENAL FAILURE
ANEMIA

Framingham Diagnostic Criteria for CHF

- Major criteria
  - Paroxysmal
  - Neck vein distension
  - Rales
  - Radiographic cardiomegaly
  - Acute pulmonary oedema
  - S3 gallop
  - Increased central venous pressure
  - Hepatojugular reflux
  - Weight loss (>4.5 kg in 5 days in response to treatment)
- Minor criteria
  - Bilateral ankle oedema
  - Night cough
  - Dyspnoea on ordinary exertion
  - Hepatomegaly
  - Pleural effusion
  - Tachycardia (>120 bpm)
  - Decrease in vital capacity
  - Weight loss

VITAL SIGNS



Fluid Intake/Output

Fluid Intake	Oral Fulide	—	–	50	200	–	200		
	Parenteral								
		—	~	50	200	—	200		
	Total	— —		250		—			
Fluid Output	Urine	1???	500	550	300	150	500		
	Emesis								
	Drainage								
	Aspiration								
		100?	500	550	300	150	500		
	Total	860+19		1000					
	Stools		–	–		P	|	-	
	Urine		1	1P		1P	1P	1P	
	Medications								
	Cr	2.2		2.9.					

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
3 Aug 09 (13.30)	**3 Aug 09**
-Admit	-Record V/S
-Blood for CBC, BUN, Cr, E'lyte	-Record I/O
-UA	-Restricted fluid oral <1,000 ml/day
-Chest X ray	-Low salt diet
-EKG 12 leads	-Restrict Na < 2 g/d
-On O2 canula 5 LPM	-BW OD
monitor keep SpO2≥95%	MED
-Lasix 40 mg IV q 6 hr with stat	- none
- On saline lock	

INVESTIGATION

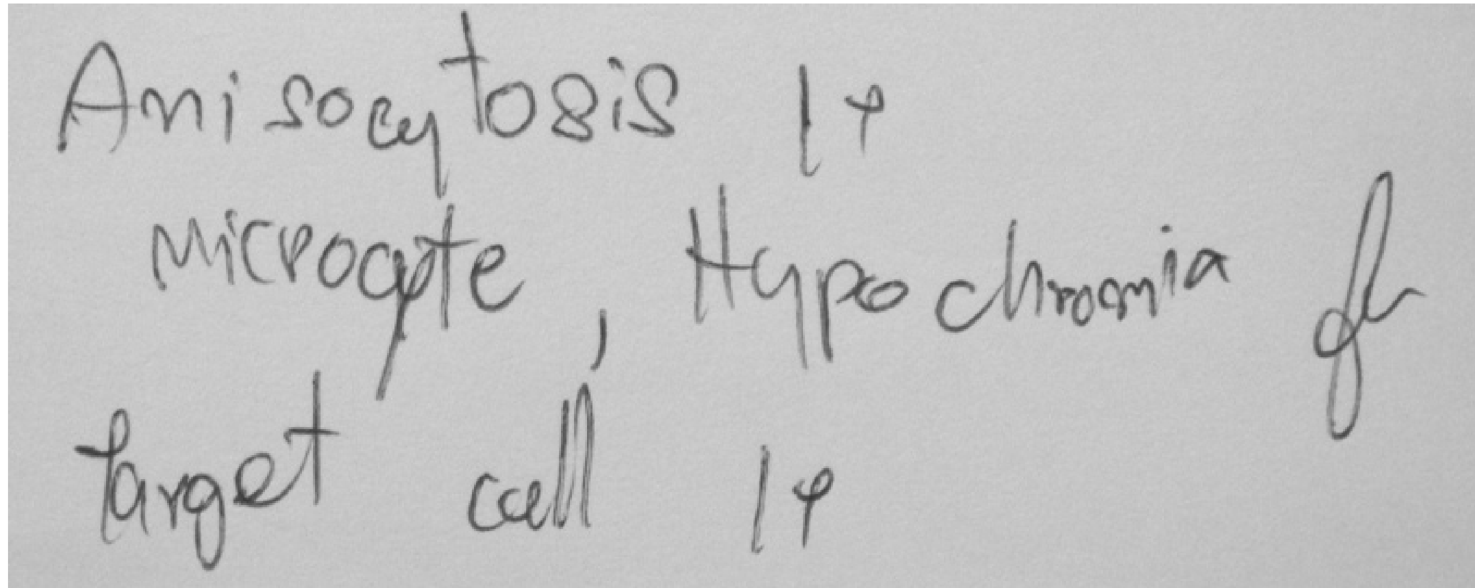
CBC 3/8/2009

Test	Result	Unit	%	Unit	Reference range
WBC	4.60	[10^3/uL]			5.0-10.0
RBC	3.07	[10^6/uL]			3.8-5.3
HGB	6.3 -	[g/dL]			12.0-18.0
HCT	21.8 -	[%]			36.0-56.0
MCV	71.0 -	[fL]			80-100
MCH	20.5 -	[pg]			27.0-32.0
MCHC	28.9 -	[g/dL]			32.0-36.0
PLT	368	[10^3/uL]			140-440
RDW-SD	47.2	[fL]			35.1-43.9
RDW-CV	18.9 +	[%]			11.6-14.4
PDW	9.2	[fL]			12.0-18.0
MPV	9.0	[fL]			5.0-10.0
P-LCR	17.7	[%]			34.1-51.0
PCT	0.33	[%]			0.1-1.0
NEUT	3.57 *	[10^3/uL]	77.6 *	[%]	42-85
LYMPH	0.61 *	[10^3/uL]	13.3 *	[%]	11-49
MONO	0.33 *	[10^3/uL]	7.2 *	[%]	0-10
EO	0.08	[10^3/uL]	1.7	[%]	0-4
BASO	0.01	[10^3/uL]	0.2	[%]	0-2

Can u find precipitating cause from this CBC ? ANEMIA

INVESTIGATION

PBS 3/8/2009



Dx? Chronic blood loss DDX parasite

INVESTIGATION

UA 3/8/2009 FOR WHAT? Infection and protienuria (edema)

UA Check the tests desired

COM

Amount .... Oder ....

Clear .... Turbid ....

Sp.gr ....

Albumin .... Test used ....

Sugar .... Chemical blood ....

Microscopic crystals .... Amorphot

R.B.C. .... 0-7 Epithelial cells 0

W.B.C. .... 0-1 (Number per high dry power field) ....

Casts .... Bacteria ....

Mucus .... Fat globules ....

URINALYSIS

04/08/2009

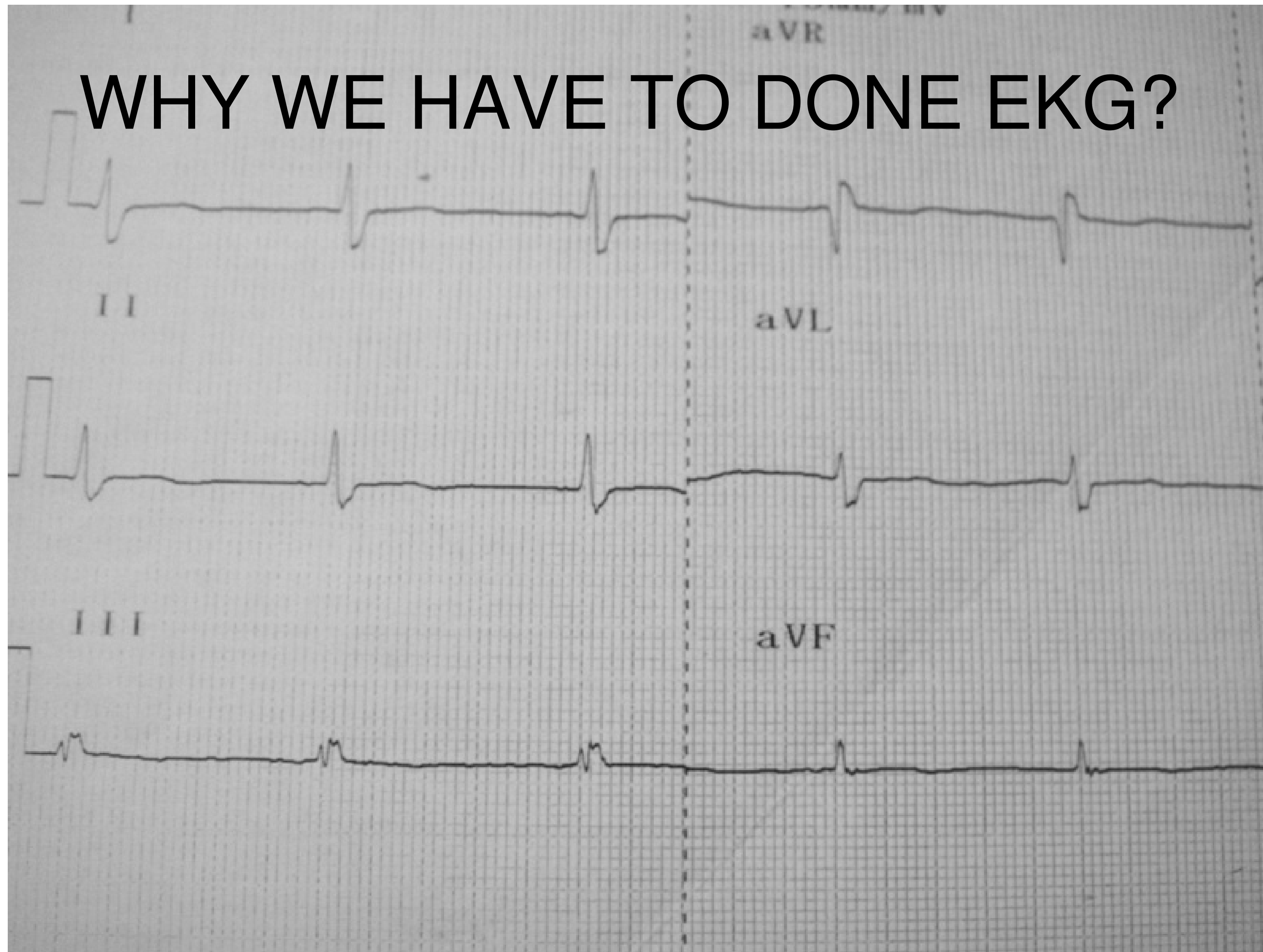
No: 7.

Pat.ID:

Test	Result
SG	1.015
LEU	neg
NIT	neg
pH	5
ERY	neg
PRO	neg
GLU	norm
ASC	neg
KET	neg
UBG	norm
BIL	neg

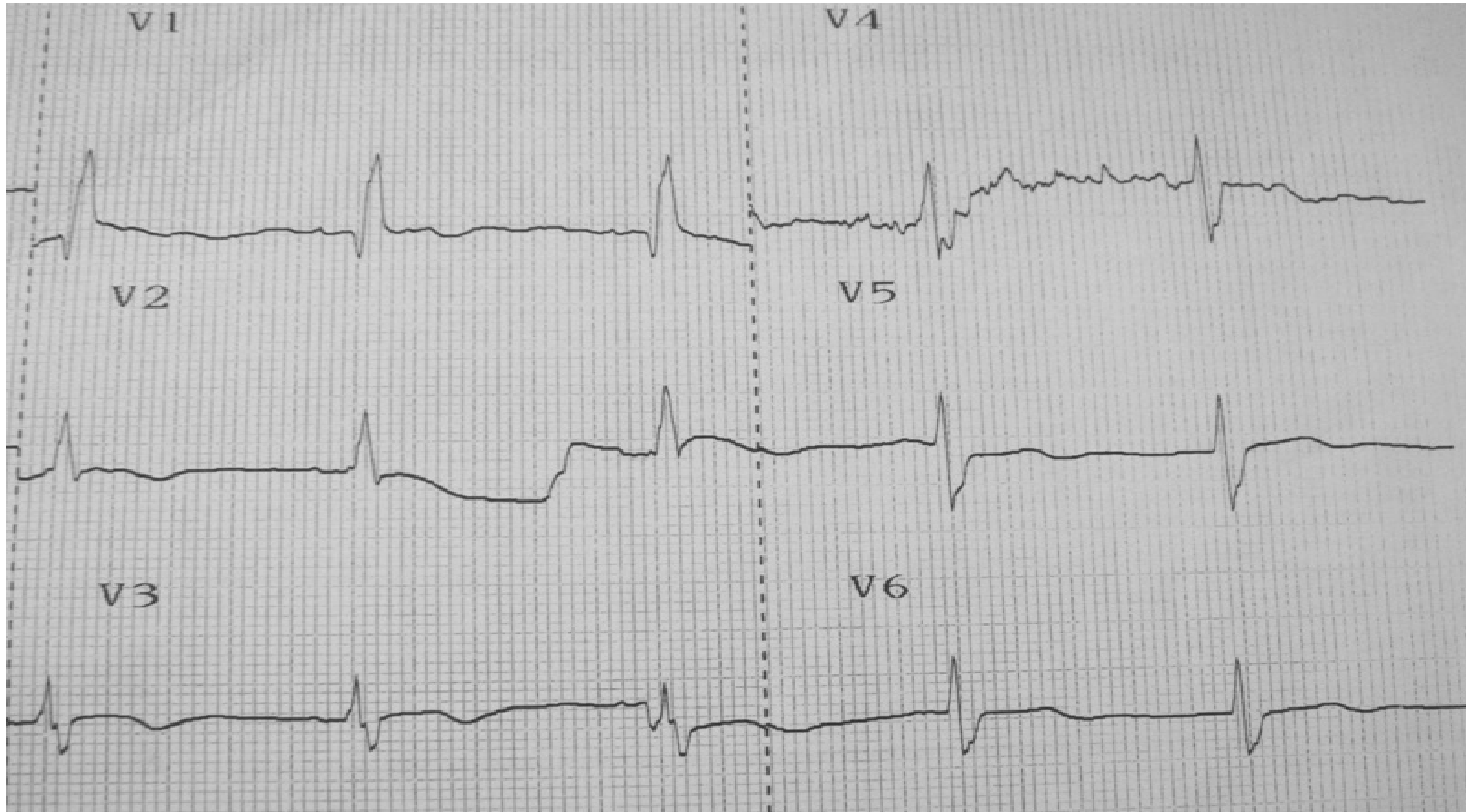
INVESTIGATION

EKG 3/8/2009 Find precipitating cause and comorbidity



INVESTIGATION

EKG 3/8/2009



Pls interpret this EKG JVR with bradycardia, no cardiomegaly

INVESTIGATION

Chest X Ray 3/8/2009

Bilateral pleural effusion with no cardiomegaly

>> Volume overload

What we should notice?

- Cardiomegaly
- Cephalization
- Pleural effusion

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
4 Aug 09 - Retained foley cath - On O2 canula 5 LPM keep O2 sat ≥ 95% - Lasix 80 mg q 6 hr - Observe urine out put if 16.00 ≤ 400cc/hr pls notify - Blood for CBC, BUN, Cr, E'lyte, PBS tomorrow - If ผลLABออก pls notify	**4 Aug 09** - Record I/O (ml) - Restrict fluid ≤ 600 cc/hr - นอนหัวสูง

INVESTIGATION

Electrolyte 4/8/2009

TEST	RESULT	UNIT
BUN	30	mg/dl
Creatinine	2.2	mg/dl
SODIUM	140	mmol/l
POTASIUM	4.6	mmol/l
CHLORIDE	106	mmol/l
Tatol CO2	27	mmol/l

What is common metabolic imbalance in ARF?

Metabolic acidosis, hyperkalemia

What is metabolic imbalance in furosemide used?

Hyponatremia, hypokalemia, metabolic alkalosis, hyperglycemia

INVESTIGATION

CBC 5/8/2009

Test	Result	Flag	Unit	Result (%)	Flag	Unit	Reference
WBC	5.18		[10^3/uL]				5.0-10.0
RBC	2.60		[10^6/uL]				3.8-5.3
HGB	5.3	-	[g/dL]				12.0-18.0
HCT	19.7	-	[%]				36.0-56.0
MCV	75.8	-	[fL]				80-100
MCH	20.4	-	[pg]				27.0-32.0
MCHC	26.9	-	[g/dL]				32.0-36.0
PLT	268		[10^3/uL]				140-440
RDW-SD	52.0		[fL]				35.1-43.9
RDW-CV	19.7	+	[%]				11.6-14.4
PDW	9.8		[fL]				12.0-18.0
MPV	9.1		[fL]				5.0-10.0
P-LCR	18.0		[%]				34.1-51.0
PCT	0.24		[%]				0.1-1.0
NEUT	4.37	*	[10^3/uL]	84.4	*	[%]	42-85
LYMPH	0.38	-	[10^3/uL]	7.3	-	[%]	11-49
MONO	0.39		[10^3/uL]	7.5		[%]	0-10
EO	0.04	*	[10^3/uL]	0.8	*	[%]	0-4
BASO	0.00	*	[10^3/uL]	0.0	*	[%]	0-2

INVESTIGATION

Electrolyte 5/8/2009

TEST	RESULT	UNIT
BUN	35	mg/dl
Creatinine	2.9	mg/dl
SODIUM	141	mmol/l
POTASIUM	5.3	mmol/l
CHLORIDE	105	mmol/l
Tatol CO2	27	mmol/l

Pls interprete

- Hyperkalemia
- Cr rising

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
5 Aug 09 - Lasix 80 mg IV q 6 hr → off - On O2 canula 5 LPM keep O2 sat ≥ 95% - O2 sat RA พรุ่งนี้เช้า - Chest X ray พรุ่งนี้เช้า 5 Aug 09 - Stool occult blood x III days - Stool conc. for parasites รคส.	

DOCTOR'S ORDER SHEET SOIDAO HOSPITAL

ORDER FOR ONE DAY	ORDER FOR CONTINUATION
5 Aug 09 -NTG (1:5) sig. 6 ml/hr titrate เพิ่ม 2ml/hr Keep BP ≥ 90/60 mmHg (for increase effective circulatory volume) -off lasix เดิม -Lasix 80 mg IV q 8 hr -Blood for BUN, Cr, E'lyte พรุ่งนี้ รคส.	