

# Case of jaundice complicating pregnancy

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Nazia ,22 year old Primigravida  
registered at 22 wks of gest<sup>n</sup>

Received 4 AN visits with GP

AN profile

Two episodes of UTI treated by GP.

Diagnosis – 40 -45 pus cells /HPF ( first trimester)

At booking,

Urine culture -No significant bacteruria.

5<sup>th</sup> June (D2of illness) : 2am- ? 8months gest

Came as ? Leaking , & fever since previous day.

o/e : 103<sup>0</sup> F.

P – 98/min

Uterus – relaxed, 30 wks size, FHS +

P/V – No leak seen, Cx closed, long uneffaced.

Paracetamol tab.

Blood was drawn during fever

Sterile pad

No antibiotic was started as leak was not confirmed

- D2 of illness : 11am
- No fever since last PCM, No leak.
- CBC – TC – 9200, N78 L18 .Hb – 10.8  
Platelet **1.05 lakhs**,  
Malarial parasite negative,  
Urine routine **10 pus cells/hpf**. Alb Trace, Sugar Nil
- Usg : live baby, AGA – 1.8 Kg, AFI 8
- Urine culture sent .  
Ciproflox 500 BID (i/v/o past UTI , awaiting culture)

No focus of infection clinically.

- Patient was very comfortable, eating well feeling better hence agreed to come next day with CBC report from same lab.

D3of illness- 1 pm in OPD

She was afebrile now, only one fever spike in night .. Taken PCM once.  
c/o **epi gastric pain and less urine output ... only on leading**  
**Questions. admitted**

Hb 10.5 gm%

TLC – 9100

N 80

**Platelet – 73000**

History , reduced platelet count, Negative Urine culture made us think of  
Dengue fever,

Reduced UOP- RFT, NS1 Ag for Dengue , LFT

Patient was ambulatory, oriented,

**BP 96/ 70, P106/min**

**UOP 25 cc in spite of rapid infusing 1lit of NS. Over 1 hour**

Haemogram	
Hb	8.6 gm%
TLC	8,800/ cmm
DLC	N68/L26
Platelet	1.27 L/cmm

Biochemistry	
BUN	23.8 mg/dl
Creatinine	1.7 mg/dl
AST	270 U/L
ALT	1260 U/L
Bilirubin	0.3 mg/dl
ALP	69 U/L
Protein/Albumin	5.8/2.9 gm/dl
Glucose	84 mg/dl

Patient referred i/v/o

c/o epigastric pain and oliguria (50cc)  
platelet 95000  
dengue I<sub>g</sub>M negative,  
SGOT/PT raised,  
S creat 1.7

Referred to Physician

Patient went walking ( just to emphasize Normalcy of situation)

# D 4 of illness

Patient conscious, oriented

HR -110

BP 83/50

SPO2 98% (room air) RR 20/min Pallor +

Lungs – clear/ Abdomen – non tender

FHS 156 /min

- Started on Inj Ceftriaxone 2gm OD
- Hypotension managed with iv fluids & vasopressors
- FHS monitored regularly
- Urine output remained low throughout the night despite optimal fluid loading

## Investigations - DAY 5 of illness / day 1 ICU

Haemogram	
Hb	10.1 gm%
TLC	9,100/ cmm
DLC	N65/L25
Platelet	73000
PBS	no schistocytes

Biochemistry	
BUN	28 mg/dl
Creatinine	2.0 mg/dl
AST	3955 U/L
ALT	1750 U/L
Bilirubin	2.2 mg/dl
Ammonia	10 µmol/L

Arterial Blood Gas	
pH	7.20
PaO <sub>2</sub>	90 mmHg
PaCO <sub>2</sub>	30 mmHg
HCO <sub>3</sub>	13.5 mmol/L

Other investigations	
USG Abdomen	obs doppler normal
Urine REME	6 -8 pus cells/ HPF

# Differential Diagnosis

- TROPICAL FEVERS
  - LEPTOSPIROSIS
  - DENGUE
  - COMPLICATED MALARIA
- ACUTE HEPATITIS IN PREGNANCY
  - ? CAUSE
    - ? INFECTIVE ? HEV
    - ? HELLP / AFLP
- UTI WITH SEPSIS

**Management - DAY 5**

<b>CRITICAL CARE CHART</b>	
<b>INTAKE</b>	
IV	3500
Oral	
Net intake	3500
<b>OUTPUT</b>	150
<b>FLUID BALANCE</b>	+3350
CVP	

<b>ORGAN SUPPORT</b>	
<b>VASOPRESSORS</b>	
Noradrenaline	Y
<b>VENTILATION</b>	N

<b>FASTHUG</b>	
<b>FEEDING</b>	NBM
<b>ANALGESIA</b>	N
<b>SEDATION</b>	N
<b>THROMBOPROPHYLAXIS</b>	N
<b>HEAD OF BED 30 - 45°</b>	Y
<b>ULCER PROPHYLAXIS</b>	Y
<b>GLYCAEMIC CONTROL</b>	HYPO

<b>SPECIFIC THERAPY</b>	
<b>ANTIBIOTICS</b>	
Ceftriaxone	Y

## D 6 of illness = D 2 at TSSH ICU

- Issues:

persistent hypotension → CVC → targeted therapy

persistent oliguria → Furosemide @ 40 mg/hr

recurrent hypoglycemia → 25% D infusion

severe metabolic acidosis → sodabcarb

**Patient went into spontaneous labour , delivered a fresh still born male baby 1.8 Kg. Placenta expelled spontaneously after 1 hour after pitocin infusion. Patient was conscious but disoriented.**

- Prophylactically infused 6 RDP & 6 FFP

Anti HEV - Positive	Anti HAV - Negative
LDH - 3834	Anti HCV - Negative
Retic count - 1.5	HbsAg- Negative
Fibrinogen = 290	Dengue NS-1, IgM ,& IgG – Negative
INR 1.8	Lepto - IgM - Negative

# D 3 - 6 at TSSH ICU

- Issues:

pulmonary edema → NIV x 2 days → MV with *paralysis* x 48 hours

persistent hypotension → NE + AVP + Dobutamine + *steroids*

persistent oliguria → Hemodialysis

recurrent hypoglycemia → 25% D infusion

anemia → Hb 8.1 → 2 PRBC

SOFA 15/24

- TLC: 27600 → Meropenem & Teicoplanin → TLC 35600 → Colistin, Metronidazole, Caspofungin

## Investigations - DAY 5 of ICU

Haemogram	
Hb	10.4 gm%
TLC	35,400/ cmm
DLC	
Platelet	16000
Retic count	5

Biochemistry	
BUN	
Creatinine	2.8 mg/dl
AST	1379
ALT	725
Bilirubin	
LDH	1820
Ammonia	7 $\mu$ mol/L

Arterial Blood Gas	
pH	7.30
PaO <sub>2</sub>	73 mmHg
PaCO <sub>2</sub>	42 mmHg
HCO <sub>3</sub>	24.3 mmol/L

Other investigations	
Urine culture	No growth
Blood culture	No growth
Procalcitonin	62.7
D - dimer	>10,000
2D Echo	Generalized hypokinesia, poor LV contractility

**Management - DAY 5 OF ICU**

CRITICAL CARE CHART	
<b>INTAKE</b>	
IV	800
Oral	1000
Net intake	1800
<b>OUTPUT</b>	1500
<b>FLUID BALANCE</b>	+300
CVP	

FASTHUG	
<b>FEEDING</b>	EN
<b>ANALGESIA</b>	Fentanyl
<b>SEDATION</b>	Midazolam
<b>THROMBOPROPHYLAXIS</b>	IPC
<b>HEAD OF BED 30 - 45°</b>	Y
<b>ULCER PROPHYLAXIS</b>	Pantoprazole
<b>GLYCAEMIC CONTROL</b>	HYPO

ORGAN SUPPORT	
<b>VASOPRESSORS</b>	
Noradrenaline	Y
AVP	Y
Dobutamine	Y
<b>VENTILATION</b>	Y
PC 20 PEEP 10 FiO2 0.6	
<b>HEMODIALYSIS</b>	Y
UF 500 – 1000 ML	

SPECIFIC THERAPY	
<b>ANTIBIOTICS</b>	
Meropenem	Y
Colistin	Y
Teicoplanin	Y
Caspofungin	Y
<b>TRANSFUSIONS</b>	
PLATELETS & PRBC	Y

# D 7 at TSSH ICU

- Issues:

persistent leucocytosis → antibiotics upgraded

persistent thrombocytopenia → ? cause

vasopressor induced acrocyanosis

ARDS

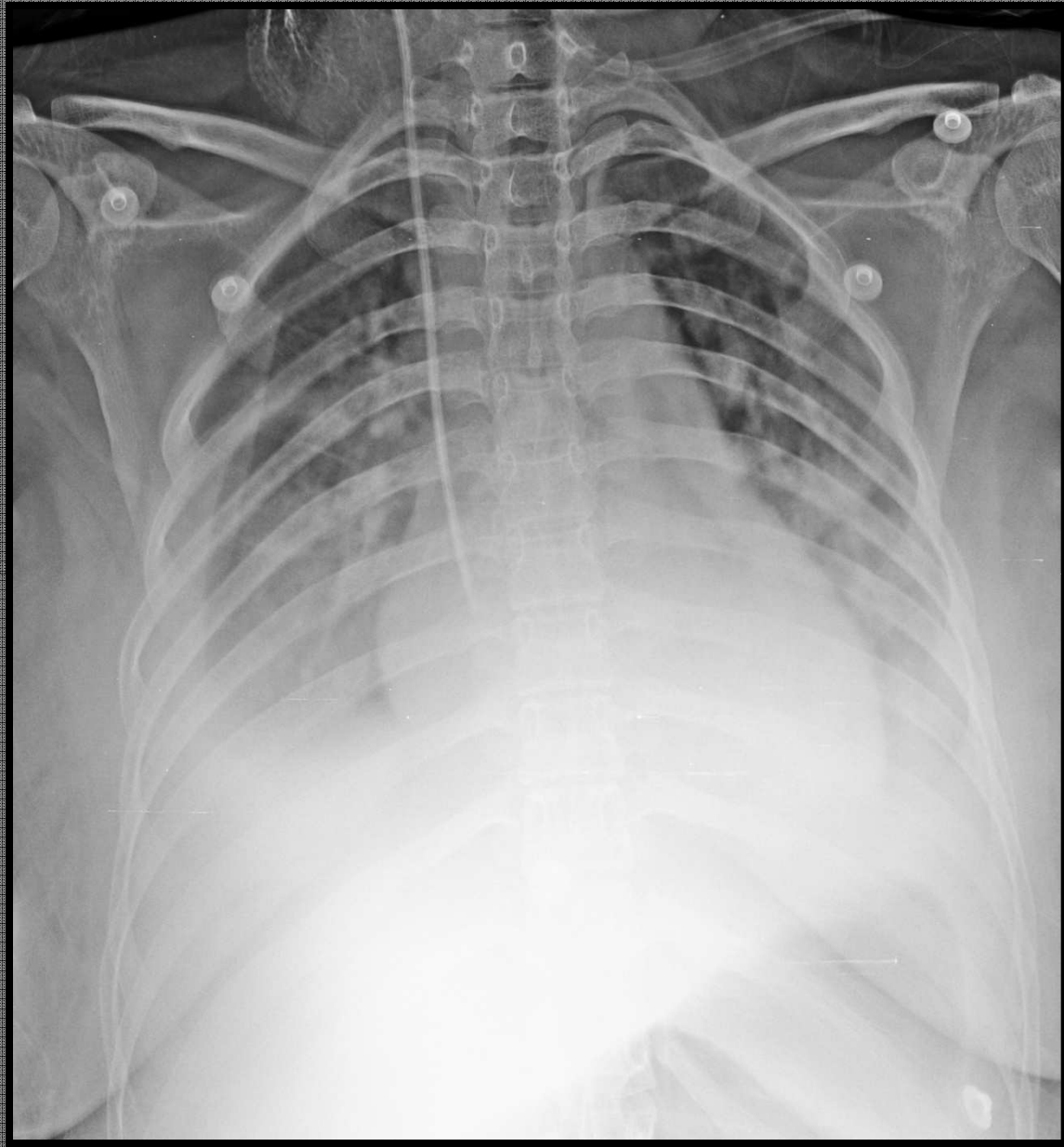
- SOFA 15/24

SOFA score	1	2	3	4
			Respiration with respiratory support	
Respiration with respiratory support PaO <sub>2</sub> /FI <sub>O<sub>2</sub></sub> , mmHg	< 400	< 300	< 200	< 100
Coagulation Platelets x10 <sup>3</sup> /mm <sup>3</sup>	< 150	< 100	< 50	< 20
Liver Bilirubin, mg/dl	1.2-1.9	2-5.9	6-11.9	> 12
Cardiovascular Hypotension >15 or (doses in ug/kg-min) catecholamines > 0,1	MAP < 70mmHg	Dopamine ≤ 5 or Dobutamine (any dose)	Dopamine > 5 or catecholamines ≤ 0.1	Dopamine
Neurologic Glasgow Coma Score	13-14	10-12	6-9	< 6
Renal Creatinine mg/dl or Urine output ml/zi	1.2-1.9	2-3.4	3.5-4.9 (200-500)	> 5 (< 200)

544 patients - ICU STAY > 7 days  
survivors vs nonsurvivors

total SOFA score increased in 44% of the nonsurvivors vs 20% of the survivors (p < .001). the total SOFA score decreased in 33% of the survivors vs 21% of the nonsurvivors (p < .001)

Vincent JLV. Crit Care Med. 1998



# D 7 at TSSH ICU

- *persistent thrombocytopenia* → ? Cause
- Sepsis: why not resolving if on appropriate antibiotics
- DIC: no lab evidence
- Hepatic cause: LFTs were improving
- HELLP/HUS/TTP: ? Underlying/overlapping illness

IgM Anticardiolipin antibody	negative
IgG Anticardiolipin antibody	negative
IgM Antiphospholipid antibody	negative
IgG Antiphospholipid antibody	negative
ANA	negative
PBS for microangiopathic hemolytic anemia	negative

# D 7 – 12 at TSSH ICU

- [Plasmapheresis](#): 2L/cycle x 4 cycles
- Came off vasopressors
- TLC settled
- Platelet count improved
- AKI: started resolving
- Extubated on day 11

## However noted to have

Flaccid quadriparesis

DTJ +

? Critical illness myopathy  
(steroid + Vecuronium)

? Cortical Venous  
Thrombosis

# D 19 at TSSH

- Shifted to Ward on D 16
- Awake, alert, oriented
- Breathing well on room air
- Hemodynamically stable
- Lower limb power Grade 3/5
- Walks 2 -3 steps with support

## Investigations - DAY 1 – 19 of TSSH stay

Haemogram	
Hb	11.6 gm%
TLC	25,200/ cmm
DLC	
Platelet	1,86,000

Biochemistry	
BUN	
Creatinine	3.0 mg/dl
AST	69 U/L
ALT	118 U/L
Bilirubin	11.4 mg/dl

Discharged

LFT, RFT, Haemogram all normal.

Patient ambulatory

Lost some memory about pre ICU illness .

Recovery os on..... With many questions ????????

- What did we miss in AN visits
- What should be considered as screening modality of UTI
- Should bacteruria  $< 10^5$  be treated
- Was Ciproflox was a bad choice to begin with
- Is any role of antimalarial ? In all high grade fevers
- Can HELP be the diagnosis in absence of HT
- What if she did not go in spont labour? Physicians were recommending induction / relatives in retrospect were questioning about NOT doing LSCS.
- Can we give uterotonics in ARF
- Anesthesia?
- Plasmapheresis ... was it a right choice