CLINICAL MEETING
11-1-2018
DEPARTMENT OF PEDIATRICS
KIMS NARKETPALLY

Case Presentation by
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1st Year PG in Pediatrics

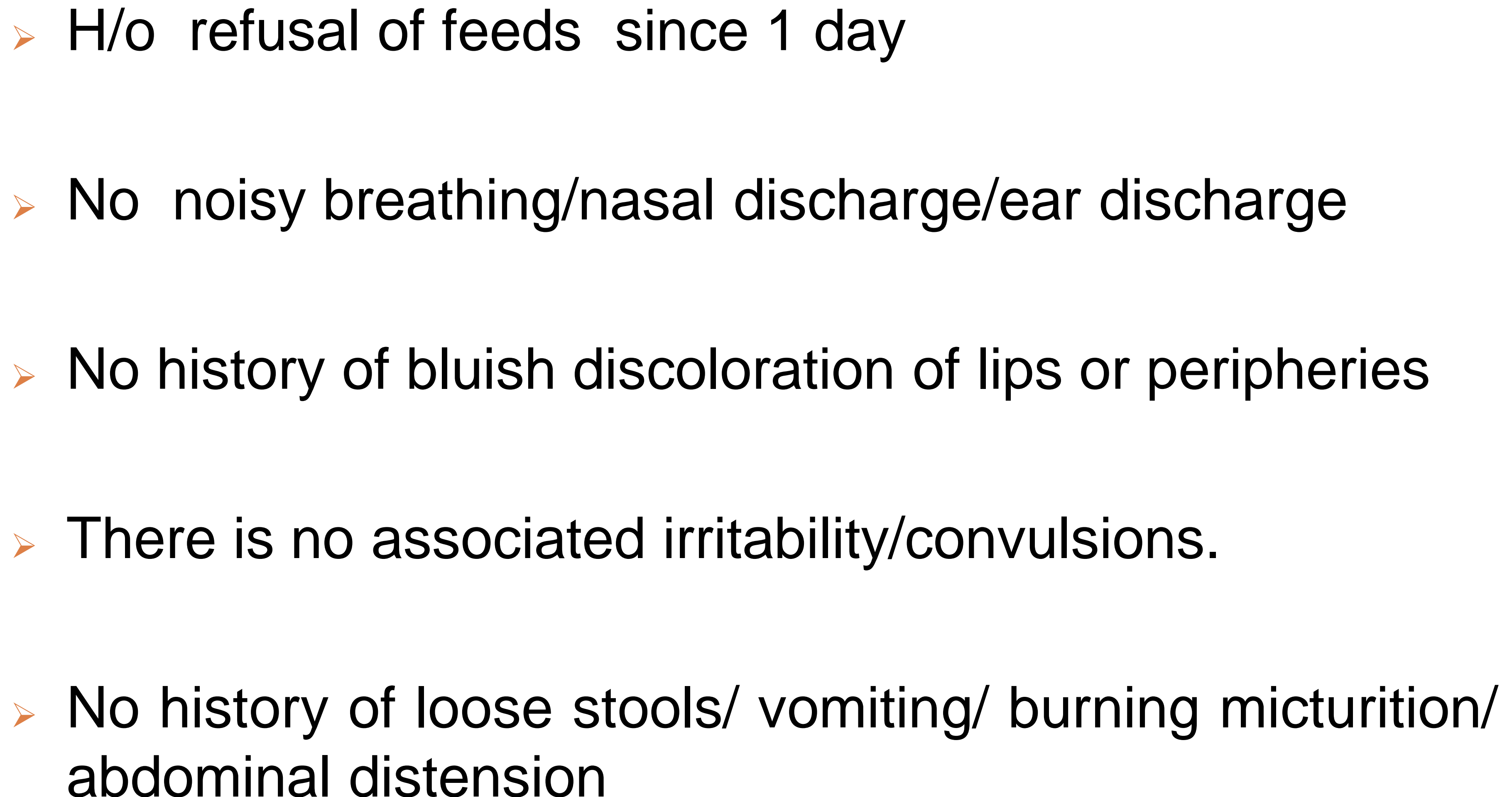
Chief complaints

- Informant : Mother

- 12 month old girl R/o Nalgonda, was brought with complaints of
  - Cold and cough -10 days
  - Fever - 9 days
  - Rapid breathing - 1 day
  - Not taking feeds -1 day

History of presenting illness :

- Child was apparently asymptomatic 10 days back then developed -
- **Cough** was insidious, intermittent ,dry with no diurnal or postural variation.
- History of **low grade fever**, since 9 days, relieved on medication, no diurnal variation.
- Child developed **rapid breathing** with no retractions.


H/o refusal of feeds since 1 day
No noisy breathing/nasal discharge/ear discharge
No history of bluish discoloration of lips or peripheries
There is no associated irritability/convulsions.
No history of loose stools/ vomiting/ burning micturition/ abdominal distension

PAST HISTORY

- Baby had 8 episodes of cough and cold from the age of 20 days and was treated with oral medications.

- Child was admitted in hospital for LRTI and was treated with IV medications for 5 days at the age of 2 months.

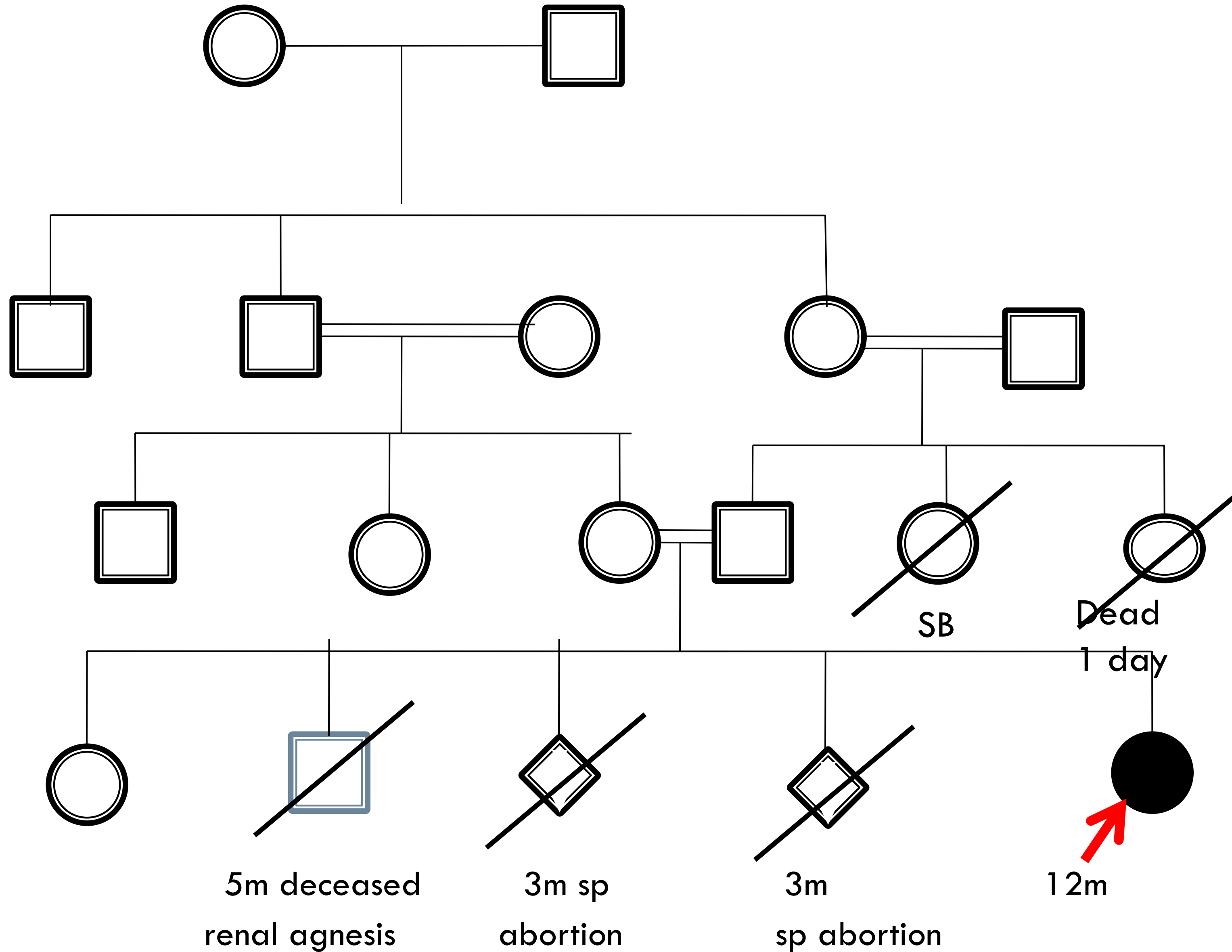
- Child was earlier treated by a family doctor, and has come for the 1st time to our hospital

- No documentation of previous treatment/ admission in hospital or discharge card was available

Family history :

- Product of 3 rd degree consanguineous marriage (second child)
- No similar illness in the sibling or the family.
- No history of contact with tuberculosis
- Paternal Grand mother is a known Asthmatic

PEDIGREE CHART



Antenatal history

- **First trimester-**
  - UPT confirmed at 2 months
  - No history of fever with rash
  - FA taken
- **Second trimester-**
  - Foetal movements perceived from 5th month
  - 2 doses of TT taken
  - Fe & Ca supplements taken
  - No h/o thyroid disorders/epileptic disorders/hypertensive disorders/diabetes

- **Third trimester-**
  - No h/o pre eclampsia, eclampsia/bleeding/leaking PV.
  - No history of polyhydramnios
  - H/o oligohydramnios in third trimester

- **Natal history** :
  - Born through emergency LSCS. Indication being Oligohydramnios
  - Cried immediately after birth
  - Birthweight - 2.6kgs.

- **Postnatal history**:
  - Exclusive breast feeding started within 4 hrs and continued till 6 months of life
  - No postnatal problem. No history of neonatal ICU Admission

- **Immunisation history :**
  - Immunised till date as per National immunisation schedule
  - BCG scar seen on left arm.

- **Developmental history:**
  - Child is able to walk with support, eat with spilling with cup, can speak bi- syllables and plays peek a boo.
  - Developmentally normal for age.

- **Dietary history**
  - Observed intake 710 kcal, Expected calorie intake 900 kcal. Calorie Deficit 190kcal
  - Observed intake of protein 12 gms Expected protein 18 gms,

- **Socioeconomic history**:
  - Lives in pukka house.
  - No overcrowding
  - No pets.
  - Separate kitchen with cooking gas present
  - No exposure to smokers in the family
  - Separate toilet facility present.
  - They have safe drinking water source.
  - Belongs to Upper middle socioeconomic class as per modified Kuppuswami scale

SUMMARY OF HISTORY

- 12months female child a product of 3rd degree consanguinity with
- Cold and cough 10 days,
- Fever for 9days,
- Rapid breathing from 1 day,
- Recurrent respiratory tract infections
- With family history of asthma

Based on the history

? Possibilities

Differential diagnosis based on history

1. Foreign body aspiration - retention
2. Repeated Aspiration with infection - GERD
3. Cyanotic Congenital heart disease – repeated inf. with Left to right shunt
4. Congenital lung malformations – Sequestered lung, CCAM, TOF- H
5. Ciliary dyskinesias – Cystic fibrosis,
6. Kartegener syndrome(situs inversus with immotile ciliary dyskinesia sunisitis)
7. immmunodeficiency
8. Tuberculosis

General examination

- Child is irritable. Afebrile
- No pallor/icterus.
- No cyanosis/clubbing/lymphadenopathy
- No oedema.
- Head to toe examination : Normal

Vital data

- Temperature 99 °F
- PR- 90/min, Normal in volume character and all peripheral pulses felt.
- RR-48/min, Abdomino-thoracic type of respiration
- BP-90/60 mm of hg, in left arm with appropriate cuff size in supine posture at heart level.
- Spo2 98% at room air

Anthropometry

	OBSERVED	EXPECTED	CENTILE
Weight	**6.8**	**8.9**	**<3**
Height	72	74	50
Head circumference	43.5	44.9	50

- Acute malnutrition according to who classification

Respiratory System Examination

- **INSPECTION**

- Upper respiratory tract – normal
- Trachea appears to be deviated to right side
- Trail sign – sternomastoid prominence in the right side.
- Bony deformity over the right parasternal region
- Shape of chest- Right side parasternal bulge present.
- Chest movements appears to be decreased on the left side.
- No engorged veins/No chest wall indrawing /retractions

PALPATION – All inspectory findings are confirmed

- Trachea is deviated to right side
- Apex beat palpable in the right 5th intercostal space lateral to right sternal border

PERCUSSION –

- Resonant note on the left >> right.

AUSCULTATION:

- Bilateral air entry present but decreased in the left inframammary area,left infra-axillary and infrascapular areas
- Extensive crepitations were heard throughout the lung fields

Per abdomen

INSPECTION:

- Shape of the abdomen appears scaphoid.
- Symmetrical movements in all the quadrants with respiration
- Umbilicus is central and inverted
- No visible masses and peristalsis

PALPATION:

- Soft
- Non tender
- No organomegaly

AUSCULTATION:

- Bowel sounds heard normal

Cardiovascular system examination:

- **INSPECTION**:
  - Shape of chest- Asymmetrical, Right parasternal bulge present
  - No visible pulsations
  - No engorged veins
  - Apex impulse not visible

- **PALPATION**:
  - Apex beat palpable in the right 5th intercostal space just lateral to right sternal border

AUSCULTATION

- S1 S2 Normal.
- Heart sound are **better heard on the right** parasternal area compared to the left side
- No murmurs

- **Central nervous system-** normal

Case summary

- **Positive history**: 12 months old immunised child born to mother of 3rd degree consanguinous marriage with repeated respiratory tract infections

- **Positive clinical findings**
  - Apex beat better felt on right sternal border
  - Resonant note on left side >> right
  - Decreased breath sounds on left side
  - Extensive crepitations through out the lung field

Possiblities – DD ?

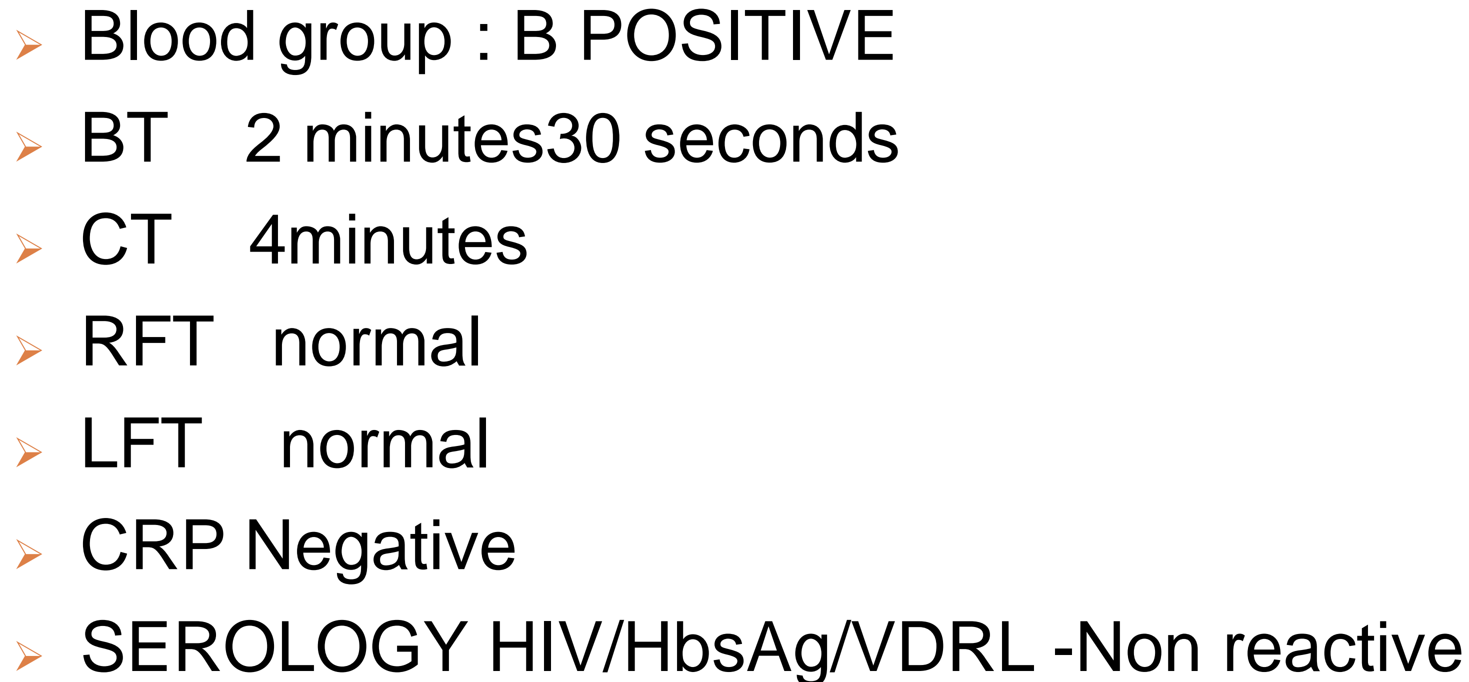
Based on the mediastinal shift - DD

1. Eventration of diaphragm
2. Diaphragmatic hernia
3. Cystic adenomatoid formation
4. Lobar emphysema – TB or Congenital
5. Kartagener’s syndrome

Complete hemogram

- HB 10.7 gm %
- TC 11,500 cells/cumm

N	47%
L	48%
E	02%
M	03%
B	0%
PLATELET COUNT	3.34 L/CUMM

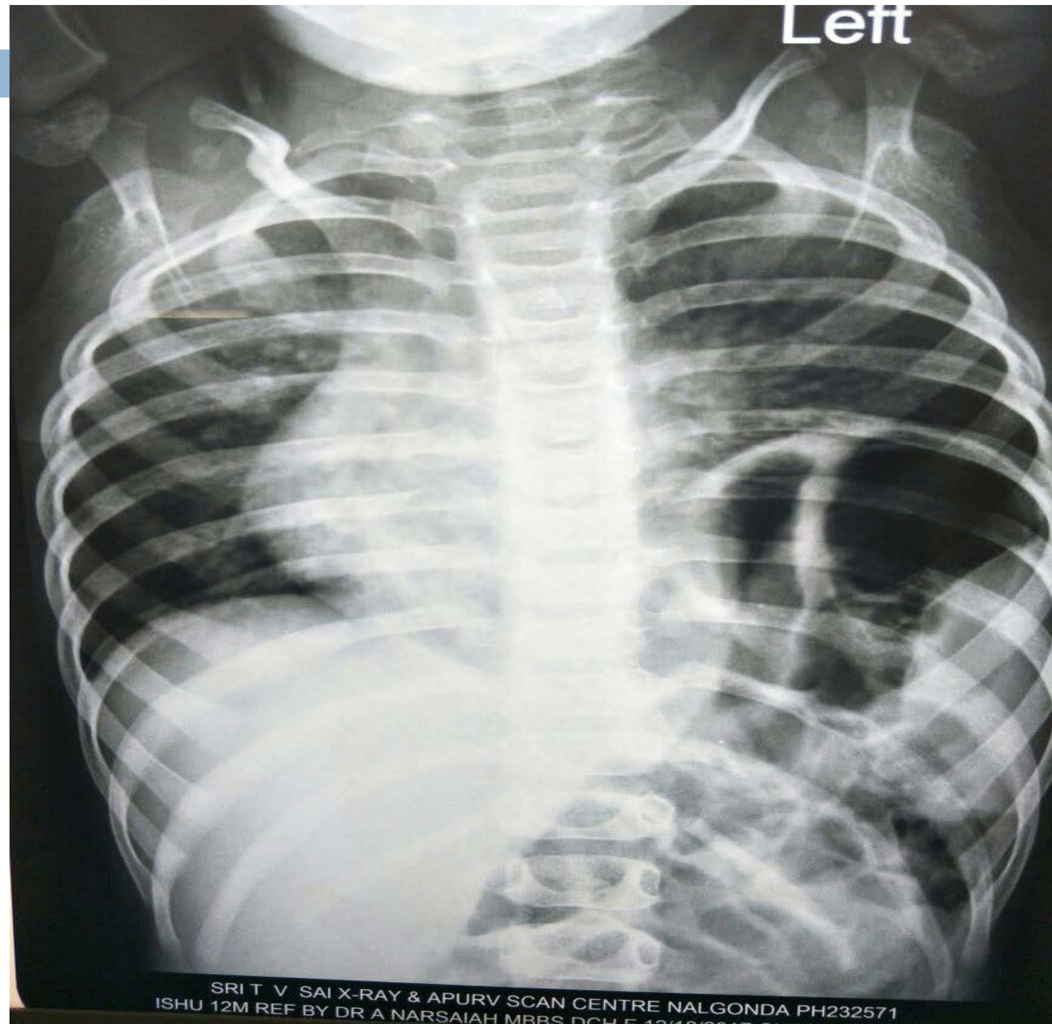


Blood group : B POSITIVE
BT 2 minutes30 seconds
CT 4minutes
RFT normal
LFT normal
CRP Negative
SEROLOGY HIV/HbsAg/VDRL -Non reactive

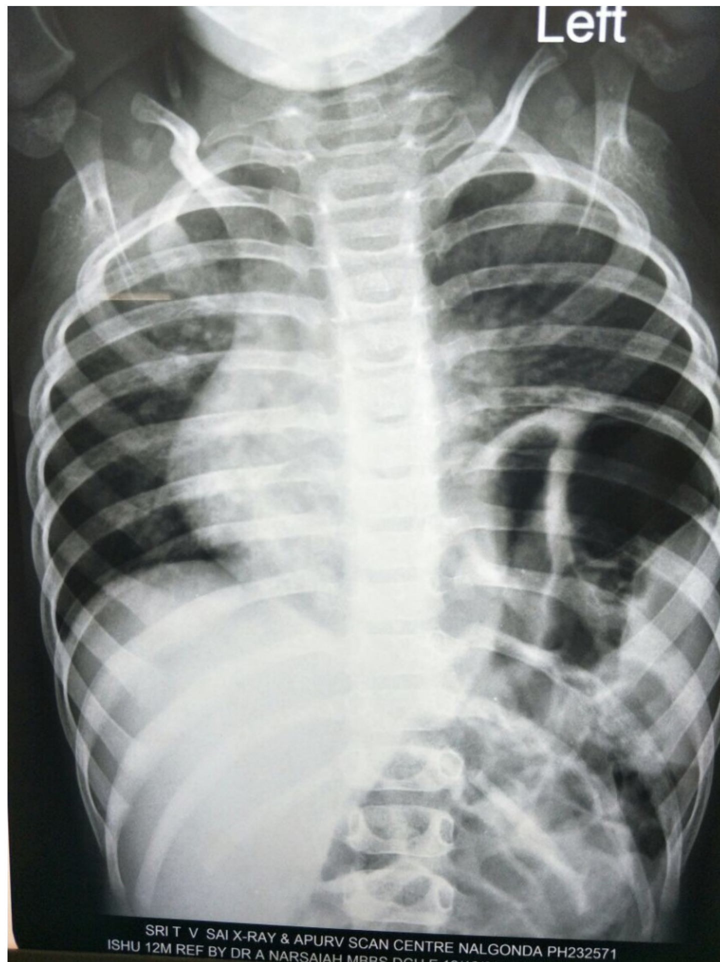
ABG

PH	**7.39**
PCO2	**24.4**
PO2	**93.7**
HCO3	**17.7**
SO2	**96.6%**

Compensated metabolic acidosis with respiratory alkalosis



Comments...



- Mediastinum shift to right
- Trachea shifted to right side
- Left dome of diaphragm is elevated
- Bowel shadows seen in left lower chest.

2D Echo

- ***Dextrocardia***
- Normal AV VA
- Normal size cardiac chambers.
- 2 great arteries with normal position
- Intact IVS/IAS
- No PDA /COA
- Normal valves
- No AR/PR/MR/TR
- Good biventricular function
- No pericardial effusion

Provisional diagosis

LEFT DIAPHRAGMATIC EVENTRATION

THANK YOU

Course in the hospital

- On day 1
- Child is irritable
- No pallor/icterus/cyanosis/oedema

O/E:

Vitals:

HR-90/MIN

RR-28/CMIN

SPO2-98%

S/E:

RS:BAE +/Equal

b/l crepitations present.Left side bowel sounds present

Cvs:s1 s2 normal.no murmurs

Cns:nad

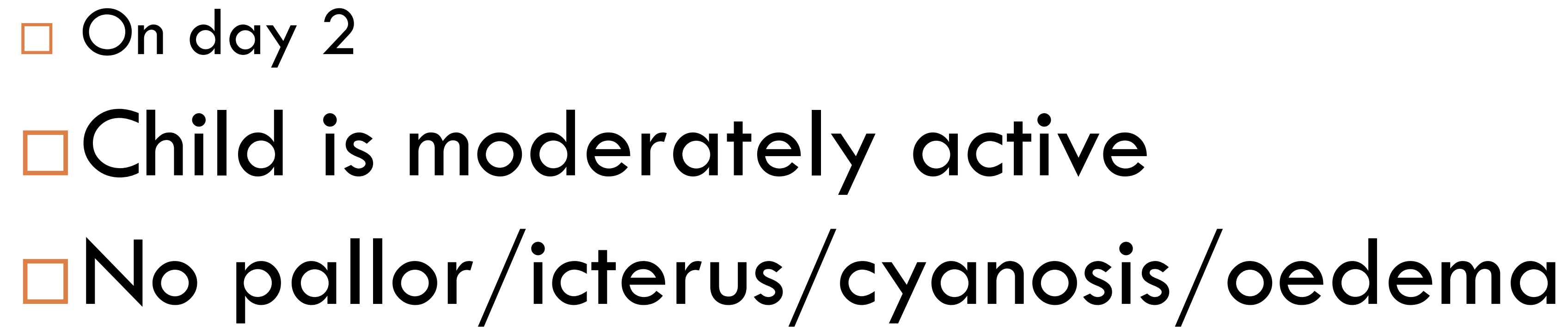
p/a:soft.no organomegaly.

Was diagnosed of diaphragmatic eventration and planned for surgery. And reffered to department of pediatric surgery

Surgical profile was done.

Was started on Taxim,Metrogyl and amikacin

PAC advised for ECHO in view of shifted apex.



- On day 2
- Child is moderately active
- No pallor/icterus/cyanosis/oedema

O/E:

Vitals:

HR-88/MIN

RR-36/MIN

SPO2-98%

S/E:

RS:BAE +/Equal

b/l crepitations present.Left side bowel sounds present

Cvs:s1 s2 normal.no murmurs

Cns:nad

p/a:soft.no organomegaly.

2 D ECHO DONE.

PAC approval obtained with moderate cardiac risk.

Taxim,amikacin and metrogyl continued

DAY 3

Child is active

No distress

O/E:

Vitals:

HR-88/MIN

RR-36/MIN

SPO2-98%

S/E:

RS:BAE +/Equal

Left side bowel sounds present

CVS:s1 s2 normal.no murmurs

CNS:NAD

P/A:soft.no organomegaly.

Diaphragmatic plication and fixation done.

Taxim,Amikacin and Metrogyl continued

DAY 4

Child is active

No distress

O/E:

Vitals:

HR-88/MIN

RR-36/MIN

SPO2-98%

S/E:

RS:BAE +/Equal.No added sounds.

CVS:S1 S2 normal.no murmurs

APEX BEAT PALPABLE ON THE LEFT 5TH INTERCOSTAL SPACE MEDIAL TO MID CLAVICULAR LINE.

CNS:NAD

P/A:soft.no organomegaly.

Taxim,Amikacin and Metrogyl continued.

Diaphragmatic eventeration: