

Neonatal
પાઠશાળી

National Neonatology Forum Gujarat State Chapter



PG Clinic

23/02/2022, Wednesday

03:30 pm - 04:30 pm

Case Presentation - An Interesting Discussion



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A CASE OF SEVERE MECONIUM ASPIRATION SYNDROME

PRESENTED BY

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JAIPUR , RAJASTHAN.

GENERAL DETAILS:

NAME: BABY OF - ABC,
PLACE- JHAGADIYA, BHARUCH, GUJARAT.

ANTENATAL HISTORY:

- ✓ Primi Gravida mother age 26 years married since 3 years had regular Antenatal checkups and Booked case at CHC Rajpipla.
- ✓ Took Iron and folic acid regularly. Three Antenatal USG were done which were normal.

NATAL AND POST NATAL HISTORY:

- ▶ LMP – 07/04/2021 & EDD – 14/01/2022
- ▶ DATE OF DELIVERY – 10/01/2022
- ▶ Onset of labor was spontaneous at 39week+ 3 days of Gestational Age and the liquor was meconium stained.
- ▶ Birth weight was 2.5Kg.
- ▶ It was a male baby, cried Immediately after birth.
- ▶ Baby was vigorous and had Tachypnea so Shifted to NICU.
- ▶ Patient was on iv fluids and oxygen by prongs.
- ▶ Due to worsening of Respiratory distress baby referred to us on 18th hour of life for mechanical ventilator support.



CONDITION ON ADMISSION IN OUR HOSPITAL:

- ▶ Baby was admitted in our hospital at 18th hour of life, Baby was sent By Government 108 Ambulance and o2 support was given by prongs.
- ▶ On admission child was Euthermic and Euglycemic and Downe's score was 8/10 and Thompson score was 3/22 on admission.

▶ Saturation

RUL- 90%	LUL- 85%
RLL- 84%	LLL- 84%

- ▶ Functional 2D Echo was suggestive of PPHN changes.
- ▶ So patient was intubated and kept on SIPPV mode of ventilation with 22/5 pressures, Fset 50, Fio2- 70% and all the routine investigations sent and the initial septic screen sent which was negative.
- ▶ ABG on Admission

pH- 7.117	Pco2- 75mmHg	Po2- 40mmHg	Hco3- 22.4mmol/L	Base excess- 6.0mmol/L	So2- 88.1%
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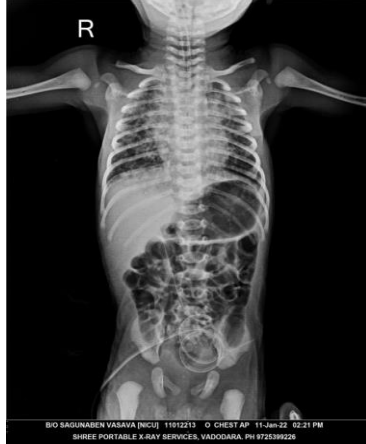




COURSE DURING NICU STAY:

- ✓ So surfactant was given (Curosurf) at 24TH Hour of life and Mechanical ventilator pressure support was reduced to 20/5 and FiO₂ was also gradually tapered under Spo₂ monitoring

Pre surfactant X-ray



Post surfactant x-Ray



COURSE DURING NICU STAY CONTINUED...

- ▶ At 36th Hour of life Patient is on mechanical ventilation SIPPV mode 18/5 pressures and 45 Fset and 40% Fio2 requirement .
- ▶ Bedside 2D echo was done by Cardiologist which was suggestive of PPHN with ventricular Dysfunction so along with Intravenous fluids Injection Milrinone, Low dose Adrenaline @ 0.1ug/kg/min was started.
- ▶ MIS- N investigations were sent as there was ventricular dysfunction which was positive.

MIS-N Investigations	Repeat ABG
IgG spike antibody- 4.59	pH- 7.25
Total antibodies – 430	pCo2- 36mmHg
D-Dimer – 1573	Po2- 70mmHg
LDH- 445	Base excess- 10mmol/L
Troponin- I – Negative	Hco3- 16mmol/L
CRP – 12 ug/dl	

Points favouring MIS-N

- ✓ Significant elevation of Total Antibodies against SARS Cov-2 Antigen
- ✓ Elevated of D-Dimer values.
- ✓ Cause of Meconium passage is Unknown & There was no Antenatal Risk factor for MSL in this patient.

Points against MIS-N

- ✓ No maternal History of Covid-19 exposure during Antenatal Period.
- ✓ Troponin- I - Negative.
- ✓ 2D ECHO was suggestive of Right ventricular Dysfunction and Coronary arteries were normal.
- ✓ Pro BNP was not done.

COURSE DURING NICU STAY CONTINUED...

Events on 3rd day of life...

- ✓ 60th hour of life Child is still on Mechanical ventilation on SIPPV mode with 16/5 pressures, Fset-40, Fio₂- 25%
- ✓ Adrenaline tapered and omitted Minimal enteral nutrition was started as the child was Hemodynamically stable and Repeat 2D echo was Normal

Repeat ABG:

pH- 7.39

pco₂-35mmHg

po₂-70mmHg

Hco₃- 19.5

Base excess-4.4mmol/L

So₂-95%

Lactate -1.77mmol/L.

Events on 4th-7th day of life...

- ✓ 84TH Hour of life Milrinone tapered and omitted on and patient was weaned off to HHFNC and later to oxygen by prongs by 96TH hour of life and kept on full Ig feeds.
- ✓ No tachypnea and distress and baby was accepting feeds well so baby was handed over to mother on 7th day of life in step down wards.

COURSE DURING KMC WARDS:

- ▶ Day 8th to 10th:
- ▶ Baby is accepting feeds well having episodes of fever, so repeat septic screen was sent which was negative but blood culture was suggestive of Acinetobacter sepsis so sensitive antibiotics were started
- ▶ Then fever episodes decreased and baby kept on Breast feeding along with Intravenous antibiotics according to culture sensitivity.



COURSE DURING KMC WARD STAY:

- ▶ 11TH TO 22ND DAY :
- ▶ iv antibiotics completed and was discharged on 22nd day on life on Breast feeding as the baby was having consecutive 3 days of weight gain.
- ▶ **Diagnosis: Singleton/FT/39week+3 days /2.5kg/SFD/Mch/ Vaginal delivery/ Cried immediately after birth/ Severe meconium aspiration syndrome with respiratory failure requiring mechanical ventilation and Surfactant administration(2D Echo suggestive of PPHN with Right ventricular Dysfunction/ MIS-N**
- ▶ **On Discharge**
- ▶ OAE – Both ears passed
- ▶ USG Head - On 24th Hour of life and On discharge – Both were Normal
- ▶ Head circumference- 32.5cm.
- ▶ Length – 51cm.
- ▶ Weight – 2.910Kg.

THANK YOU.

