TJPRC: International Journal of General Pediatrics and Medicine (TJPRC: IJGPM)
Vol. 2, Issue 1, Jun 2017, 21-28

TRANS STELLAR
•Journal Publications •Research Consultancy

PROFILE AND OUTCOME OF NEONATES WITH MECONIUM ASPIRATION SYNDROME IN - A TERTIARY REFERRAL CENTRE

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ABSTRACT

Objectives

To study the profile and outcomes of neonates with meconium aspiration syndrome- a retrospective observational study.

Methods

The study period includes from May 2014 to April 2015. The data was collected from all neonates born through meconium stained amniotic liquor who got admitted in our NICU during this period. The data collected include age of presentation, sex, weight, ventilation, oxygen therapy, duration of oxygen therapy/ ventilation provided, hospital stay, complications and outcome.

Results

The study period had 909 cases admission to NICU of which 136 cases were meconium aspiration syndrome. Mean weight 2960±0.50 grams and range being 1.20-4.0 kgs with median body weight is 2.75 kgs (CI 95% 3.3-3.75Kgs) p<0.00. Average gestational age 32 weeks IQR (28.36-36.55weeks) p<0.01. The age of presentation ranged from birth to 2 days with male predominance. Male: female ratio was 1:0.60. APGAR score <5 and blood gas abnormalities found in 16 (11.76%) and 04 (2.94%) respectively.

The mean duration of ventilator was 2.17±0.21days. The complications were seen in 98 cases, which included severe birth asphyxia 65 (47.79%) p<0.01, pneumonia 22(16.17%) p<0.01, air leak 06(4.41%) p<0.01, PPHN 08 (5.88%) p<0.01, pulmonary hemorrhage 03(2.20%) p<0.01, sepsis 09(6.61%) p<0.01and associated findings like CHD 04 (2.94%) p<0.01 cases. Neonate who had more than one complication was 22(16.17%) cases. The survival rate in our study was 93.38 % and death rate was 6.62 %, AUC 0.98 with good sensitivity 91.34 and specificity 86.22%, p<0.01. The duration of hospital stay was 5.02±0.96 days p<0.01.

Conclusion

MSAF was significantly greater in term and post term deliveries 83.82 % compared to deliveries occurring before 37 weeks of gestation. The risk of MAS is significantly greater in the presence of fetal distress and low Apgar score. There was striking association between low 5 minutes Apgar score and MAS. Sepsis and ventilator associated pneumonias are most common complications in ventilated neonates. Hence adequate care should be taken to prevent sepsis. Timely ventilation management of complications in neonates with MAS will improve outcome.

Original Article

KEYWORDS: Perinatal Asphyxia, Vigorous Neonates, Meconium Stained Amniotic Fluid (MSAF), Meconium Aspiration Syndrome (MAS), PPHN and Pneumothorax

Received: Apr 20, 2017; **Accepted:** May 11, 2017; **Published:** May 20, 2017; **Paper Id.:** TJPRC:IJGPMJUN20175

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