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Original Article

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Study of Risk Factors and Outcome of Respiratory Distress in Neonates Admitted In Neonatal Intensive Care Unit in a Tertiary Care Hospital

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ABSTRACT

Background: Respiratory distress (RD) is a challenging problem and is one of the most common causes of admission in neonatal intensive care unit. The objective was to study the various Risk factors associated with development of severe respiratory distress in the new born and to determine the severity and outcome of neonates with Respiratory distress.

Methods: A Retrospective Cross Sectional Study was conducted at Department of Paediatrics, Smt. Kashibai Navale Medical College & General Hospital, Pune. The study recruited all babies admitted in NICU diagnosed as Respiratory Distress between May 2020 to April 2022. The data was collected from records of patients files admitted during the study period. The variables studied were antenatal, natal, postnatal risk factors, clinical course, staging and final outcome for all diagnosed babies.

Results: During the study period, total 70 cases of RD admitted to NICU were recruited, among them 7 deaths were recorded in total. The most common cause of neonatal respiratory distress was Transient Tachypnea of Newborn [TTN] 34 (48%) followed by Respiratory Distress Syndrome 19(27%). Third cause was birth asphyxia 06 (8%).

Conclusion: Respiratory distress was the major cause of admission in our NICU. Caesarean section was the most common predisposing factor associated with the development of respiratory distress in neonates. Antenatal risk factors increase the incidence of RD. The most common causes of respiratory distress were TTN, RDS, Meconium Aspiration Syndrome [MAS] and perinatal asphyxia. The common cause of death was Hyaline Membrane Disease. The outcome of neonatal respiratory distress was found as:a survival rate of 90%, mortality rate of 10%.

Keywords: Respiratory Distress, Neonataldeath, Newborn, Etiology.

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INTRODUCTION

- Respiratory distress is the most common cause of neonatal admission in both term and preterm neonates.The incidence varies from 30% among preterm, 20% among post-terms to 4% in term babies [1].
- TTN is found to be the commonest cause of respiratory distress followed by meconium aspiration syndrome, hyaline membrane disease, sepsis, and birth asphyxia.
- Congenital heart diseases and surgical causes of respiratory distress account only to a minor degree [2, 3].

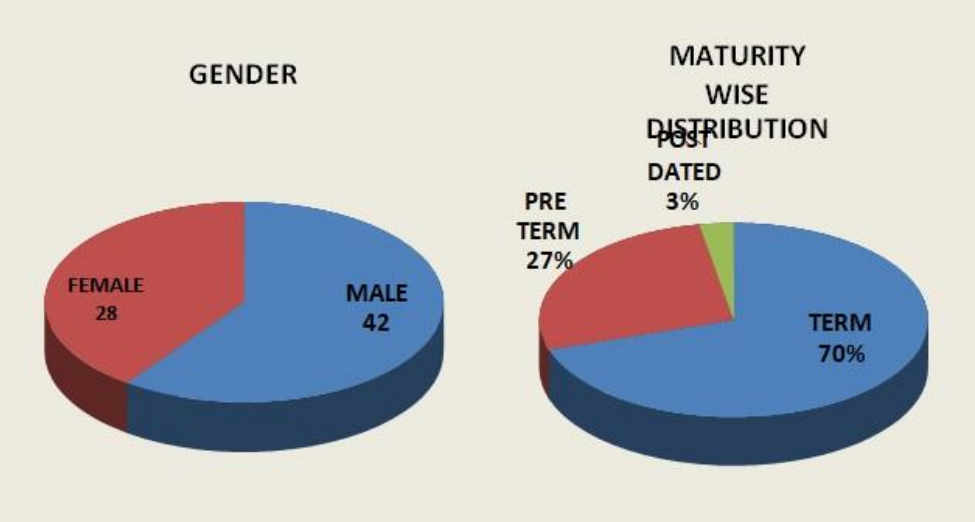
OBJECTIVES

- To study the clinical profiles of respiratory distress in the new born in NICU.
- To determinethe outcome of neonates with respiratory distress.

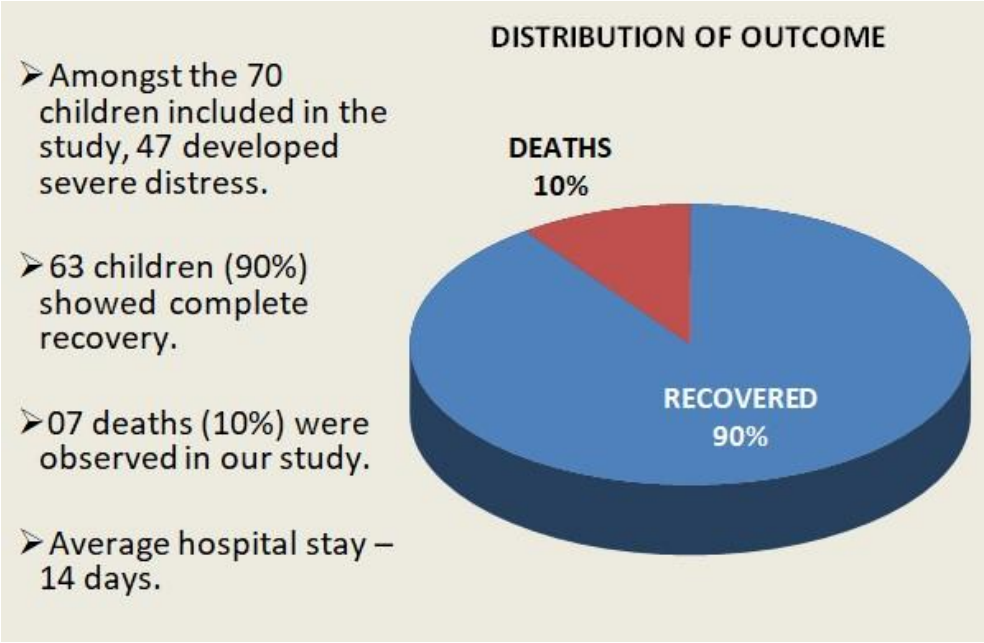
Methodology

- A retrospective study.
- All babies admitted in NICU diagnosed as respiratory distress were included in study.

RESULTS



FINALDIAGNSIS	FREQUENCY(n=70)	SEVEREDISTRESS(n=47)	NumberofDeaths
Transienttachypneaofnewborn(TTNB)	34	12	00
HyalineMembraneDisease	19	19	05(26.30%)
MeconiumAspirationSyndrome(MAS)	11	08	00
BirthAsphyxia(BA)	06	06	02(33.33%)



CONCLUSIONS

- Caesarean section was the most common factor associated with the development of Transient Tachypnea of Newborn in neonates.(88%)
- The most common causes of respiratory distress were TTN, RDS, MAS, and perinatal asphyxia.
- Sepsis was identified as additional diagnosis in in 16 cases,12 of these were in HMD group & 04 in MAS group.
- Our study showed 07 deaths,05 in HMD and 02 perinatal asphyxia.The outcome of neonatal respiratory distress in our study was: a survival rate of 90%, mortality rate of 10%.

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