

Incidence of respiratory distress syndrome and associated factors: A hospital based study

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Abstract

Background: It is often desirable, in obstetric practice to assess the risk of idiopathic respiratory distress syndrome in pregnancy. Morbidity and mortality in the neonatal period are mainly due to respiratory disorders and respiratory distress syndrome (RDS) is among the most frequently encountered clinical entity. **Objective:** Present study was done to assess the incidence of respiratory distress syndrome and associated factors at our hospital. **Methods:** This prospective study was carried out over a period of one and a half years (April 1998 to Dec. 1999). 80 cases (40 high risk and 40 without high risk factors) were included in this study group. The diagnosis of the respiratory-distress syndrome was made when there was a typical pattern of miliary atelectasis on chest roentgenogram and when the clinical feature of grunting, intercostals retractions and cyanosis were demonstrable for more than 24 hours. Factors like gestational age, birth weight and Pregnancy induced hypertension in mother were studied in relation to incidence of R.D.S. **Results:** It was observed that the incidence of R.D.S. was 20% (16 out of 80 cases). Pregnancy induced hypertension was the single most common high risk factor encountered during the study. The other associated factors observed were low birth weight and low gestational age. **Conclusions:** There was a high incidence of RDS found in our study and Pregnancy induced hypertension was the single most common high risk factor encountered during the study.

Keywords: Respiratory distress syndrome, Pregnancy induced hypertension, low birth weight.

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related the incidence of neonatal respiratory disorders to gestational age and birth weight. Present study was done to assess the incidence of respiratory distress syndrome and associated factors at our hospital.

MATERIAL AND METHODS

This prospective study was carried out over a period of one and a half years (April 1998 to Dec. 1999). 80 cases (40 high risk and 40 without high risk factors) were included in this study group. Fluid and secretions were aspirated from the oropharynx and they were stimulated to cry. If they made no respiratory efforts, intubation was done to expand their lungs with positive pressure and ventilated them with oxygen. The diagnosis of the respiratory-distress syndrome was made when there was a typical pattern of military at el ectasis on chest roentgenogram and when the clinical features of grunting, intercostals retractions and cyanosis were demonstrable for more than 24 hours. The babies were shifted to neonatal care unit for subsequent management, if required. All the babies were followed up till discharge from the hospital. Factors like gestational age, birth weight and Pregnancy induced hypertension in mother were studied in relation to incidence of R.D.S.

INTRODUCTION

It is often desirable, in obstetric practice to assess the risk of idiopathic respiratory distress syndrome in pregnancy. Morbidity and mortality in the neonatal period are mainly due to respiratory disorders and respiratory distress syndrome (RDS) is among the most frequently encountered clinical entity¹. Area-based prospective studies have been carried out evaluating the occurrence of acute respiratory illness and its risk factors earlier. In 1981, Hjalmarnson² related the frequency of acute respiratory disorders to gestational age, birth weight, sex and postnatal asphyxia. In 1994, Bonafeá and Rubaltelli³

RESULTS

It was observed that the incidence of R.D.S. was 20% (16 out of 80 cases). In 45% of cases in the study group, the duration of pregnancy was less than 37 wks. It was observed that the incidence of R.D.S. was very high (47.36%) when the duration of pregnancy was less than 34 wks. The incidence decreased with the advancement of pregnancy. It was observed that there were 6 perinatal deaths (3 still birth and 3 neonatal deaths) in the study group. All these pregnancies were associated with obstetrical complication like pregnancy induced hypertension, eclampsia and compound presentation. In the present study incidence of respiratory distress syndrome in the low birth weight babies (below 2500 grams) was high i.e. 32.35%. Pregnancy induced hypertension was the most common high risk factor encountered during the study.

DISCUSSION

It was observed that the incidence of R.D.S. was very high (47.36%) when the duration of pregnancy was less than 34 wks. The incidence decreased with the advancement of pregnancy. Bhagwanani⁴ also found that earlier the gestation, greater the proportion of RDS. In the present study incidence of respiratory distress syndrome in the low birth weight babies (below 2500 grams) was 32.35%. Study by Evan (1975)⁵ showed 27.14% RDS cases in low birth weight babies which was similar to our results. Also, study by Dani *et al*¹ reported that the frequency of RDS is inversely related to gestational age and birth weight. Pregnancy induced hypertension was

the most common high risk factor encountered during the study. Study by Tubman *et al*⁶ also found that Pregnancy induced hypertension was high risk factor for development of respiratory distress syndrome (RDS).

CONCLUSIONS

There was a high incidence of RDS found in our study and Pregnancy induced hypertension was the most common high risk factor encountered during the study.

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