

Factors Affecting Neonatal Jaundice and the Impact of the same on Growth and Development of Children Less than 3 Years.

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Abstract

This study sought to assess the factors affecting neonatal jaundice and the impact of the same on the growth and development of children less than 3 years attending the out-patient department in a SNR Hospital, Kolar district, Karnataka. A descriptive design having cross sectional survey approach with purposive sampling technique was used. Structured interview schedule was conducted to obtain data from mothers, assessment for growth and development of children was done by using Trivandrum developmental screening chart and Denver developmental screening test. The results showed a strong association between infection and nutritional deficiency during pregnancy with the rise in bilirubin level ($p < 0.001$), apart from that there was a strong association between mothers obstetrical history ($p < 0.005$), order of birth ($p < 0.001$), induction of labor ($p < 0.001$), stay in hospital ($p < 0.001$), ABO and Rh incompatibility ($p < 0.001$) with the rise in bilirubin level. The findings confirmed that factors such as antenatal, previous obstetrical, natal and neonatal have direct impact on rise in bilirubin level and also that high bilirubin level has an impact on growth and development.

Keywords: Natal, neonatal, jaundice, nutritional deficiency, physiological and pathological effects

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INTRODUCTION

Today's child is tomorrow's future. The child is the heritage of the family and children's health is world's health. Just as a young shoot needs to be healthy for a foundation of a strong tree, likewise healthy children are also essential for a healthy world^[1].

If children are healthy, future generation will be healthy resulting in a healthy environment. One of the factors in determining a child's health is the pattern of his growth and development which extends through his life cycle. However, the period in which the principle changes occur is the conception to the end of adolescence. During the phase of life the newborn functions and behavior are

mostly reflexive. Stabilization of major body function is the primary task of the neonate and occurs in a definite sequence of the physiologic events from the first day of life^[2-3].

During this period, the neonates are at risk of acquiring many problems. Among these the major health problems are- Jaundice, infection, nutritional deficiency, trauma and regulation of body temperature^[4-6].

STATEMENT OF THE PROBLEM

A study to assess the factors affecting Neonatal Jaundice and the impact of the same on growth and development of children less than 3 years attending the outpatient department in a selected hospital at Kolar district, Karnataka^[7].

Objectives of the Study

- To assess the associated factors for physiological and pathological Jaundice.
- To find the association between factors affecting neonatal jaundice and serum bilirubin level.
- To assess the growth and development of children affected by Neonatal Jaundice.
- To provide guidelines on Neonatal Jaundice, care and prevention to the mothers, and with special emphasis to the nurses^[8-9].

Research Assumptions

- Any associated factors of the mothers will result in increasing bilirubin level of the neonates.
- Any associated factors of the neonates will result in increasing the bilirubin level
- The jaundice affecting during neonatal period will result in delayed growth and development of children less than 3 years^[10].

RESEARCH METHODOLOGY

Descriptive Research Design and Cross Sectional Survey approach were adopted to carry out the study at SNR Government Hospital, Kolar.

Target Population was Mother with children less than 3 years who had suffered from neonatal Jaundice. Samples of 100 mothers with children less than 3 years who had neonatal Jaundice and attending the Outpatient Department of SNR Hospital were collected.

The Purposive Sampling Technique adopted for this analysis. Dependent variables were associated factors affecting Neonatal Jaundice and growth and development.

Recognized variables were (a) Age, sex, religion of child and (b) age, education, occupation, income, type of marriage of mother.

RESULTS

The major findings of the study were the significant factors associated with rise in bilirubin level.

- There is a strong association between infection and nutritional deficiency with the rise in bilirubin level ($P < 0.001$)
- The obstetrical history of mother reveals that abortion, still birth, sibling history have significant co relation with high bilirubin level ($P < 0.005$)
- There is strong impact on neonatal jaundice, by order of birth, and induction of labor ($P < 0.001$)
- Birth asphyxia, cry at birth, meconium passed, stay at hospital was found to be significant and sepsis, breast feeding, was found to be highly significant in producing neonatal jaundice ($P < 0.001$)
- ABO and Rh incompatibility are associated with the significant raise in serum bilirubin level ($P < 0.001$)
- This study has also proved that, the treatment varies according to the bilirubin level of the children.
- The study has excellently proved that high bilirubin level has an impact on growth and development.

CONCLUSION

The Study revealed that the factors such as antenatal, previous obstetrical, natal and neonatal have direct impact on the rise in bilirubin level.

- This study has proved that, the associated factors of mothers have an impact on the rise in bilirubin level.
- This study has proved that, the associated factors of neonates have an impact on the rise in bilirubin level.
- This study has proved that, the treatment varied according to the bilirubin level of the children.
- This study had excellently proved that high bilirubin level has an impact on growth and development.

RECOMMENDATIONS

- Mother and child health services are essential for decreasing the morbidity of neonatal jaundice.
- Preventive care should be emphasized at the primary, secondary and tertiary levels.
- The staff nurses, village health nurses, sector health nurses and community health nurses should be given in-service education about the early diagnosis of Neonatal jaundice, management and referral to the appropriate hospital.
- The mass media communication about neonatal jaundice and their impact on the future should be highlighted through TV and Radio and should appear on all channels and quite often.
- A nurse health educator should be posted in the neonatal ward and pediatric outpatient department to teach about the importance of follow-up and importance of growth and development.

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