Neonatal admission from emergency department

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Abstract

Neonatal period is a vulnerable period of life. In Nepal, most common causes of newborn admission in the neonatal intensive care unit (NICU) are birth asphyxia, neonatal sepsis. This study explores the diseases with which 131 neonates were admitted from emergency department. Sepsis was the main cause of admission, followed by pneumonia.

Keywords: admission, jaundice, neonates, NICU, sepsis.
Introduction

Out of the 130 million babies born every year, about 4 million die in the first 4 w of life during the neonatal period. Cesarean sections usually present to emergency department, after preliminary management, get admitted to neonatal intensive care unit (NICU). This study aim to find out the spectrum of diseases in neonates who were admitted NICU through emergency department at Patan Hospital, Nepal. This is one of the busiest emergency department in the country with more than 40000 patient visits per year.

Present Scenario

There were 41700 emergency visits in the year 2017-2018, and total admission 8370 (20.07%), pediatric 1252 (3%). The neonatal admissions were 131 (0.3%) of total and 10.4% of pediatric admissions. In neonates, male were 68 (51.9%) and female 63 (48.1%). Early neonates were 50 (38.1%) and late neonates were 81 (61.8%).

The highest number of early neonatal admission 11/month in Asar (Jun-Jul) and Ashoj (Sep-Oct), Figure 1. In early neonates, 18 (13.7%) were neonatal sepsis and 12 (9.1%) neonatal jaundice, Figure 2. In late neonatal admission, 32 (24.4%) were due to sepsis, Figure 3.

There were 21 (16.03%) blood culture positive cases out of which 5 (23.8%) was Klebsiella Pneumonia, Figure 4. One hundred and four (80%) neonate were born in this hospital and 7 (5 %) born outside and in 20 (15%) place of delivery was not mentioned in record.
Discussion

Neonates were about 10% among all admitted pediatric patients. Most of the neonates (80%) who attended the emergency was born in this hospital and male to female ration was 1.07:1.

Report from Pokhara, Nepal, showed 182 neonates, admitted, 32.4% were inborn, 41.2% babies were admitted directly from the emergency or outpatient department and 22.5% were referred from district hospitals. Male: female ratio was 1.1:1. A report from Kanti Children Hospital in Kathmandu had 1286 neonates admitted in neonatal intermediate care unit, 861 (67%) male and 423 (33%) female. Male to female ratio was 2:1. Majority of the babies, 1028 (80.0%) were full-term, 256 (20.0%) were preterm. Among
the total admission, 1157 (90.0%) were from outside the valley and 561 (43.6%) were less than 7 days.\(^3\) Report from KIST medical college showed 279 neonatal admissions, male 161 and female 118.\(^4\)

The most common cause of admission of early neonate at our hospital was neonatal sepsis (13.7%) followed by neonatal jaundice (9.1%), and in late neonate due to sepsis (24.4%). This is comparable to study from KIST medical college where commonest indication for admission was neonatal sepsis (n=349; 34.5%) followed by prematurity (n=236; 23.3%) and perinatal asphyxia (n=233; 23.1%).\(^5\)

There were 21 (16.03%) blood culture positive cases, 5 (23.8%) Klebsiella Pneumonia. A study done in KIST reports coagulase negative as most common in blood culture.\(^3\)

**Conclusion**

Sepsis is major cause of neonatal admission from emergency department. Late neonatal admission is more common than early neonatal admission.

**Conflict of Interest**

None

**Funding**

None

**References**