

as Phentermine (for children above 12 years), Liraglutide (between 12–17 years) & Orlistat (12 years & older). Once again keep in mind these medications should only be prescribed if weight management by diet and physical activity is ineffective and if the gaining weight poses a risk of, developing health issues and also the side effects of these medications also should be kept in mind. In critical cases where BMI \geq 120% of the 95th percentile with an obesity driven disease or BMI \geq 140% of the 95th percentile regardless of the comorbidities Metabolic and Bariatric Surgery (MBS) can be considered (3). Just like the physical aspect it is also essential to look after child's psychological well-being parents and close acquaintances should be asked to monitor child in that aspect and counseling should be carried out if any sort of psychological issues starts to occur.

Conclusions

Medication induced weight gain should not be overlooked and in order to children to reach their full potential in physically, mentally and socially.

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EXPLORING THE ROLE OF MATERNAL HEALTH AND COMPLICATIONS IN THE DEVELOPMENT OF PERSISTENT PULMONARY HYPERTENSION IN NEWBORNS

Introduction

Persistent pulmonary hypertension of the newborn (PPHN) is a complex condition that can be influenced by both maternal and fetal health factors. It occurs when the fetal circulation fails to transition to normal newborn circulation after birth characterized by high blood pressure in the blood vessels of the lungs, as blood vessels in the lungs do not properly relax after birth. This leads to high blood pressure in the lungs, which can result in inadequate oxygen supply to the body. It can lead to respiratory distress and potential long-term complications if not managed promptly. It can lead to significant morbidity and mortality in infants. Here are some key points to consider:

1. Maternal health factors:

– Maternal conditions: Certain maternal health conditions can increase the risk of PPHN in newborns. These include diabetes, hypertension, obesity, thyroid disorders, and certain autoimmune diseases.

– Medications: Some medications taken during pregnancy, such as selective serotonin reuptake inhibitors (SSRIs) and nonsteroidal anti-inflammatory drugs (NSAIDs), have been associated with an increased risk of PPHN.

– Substance abuse: Maternal use of tobacco, alcohol, or illicit drugs during pregnancy can contribute to the development of PPHN.

2. Fetal health factors:

– Congenital abnormalities: Some congenital anomalies, particularly those affecting the heart or lungs, can lead to PPHN.

– Genetic factors: Certain genetic syndromes or abnormalities can increase the risk of PPHN.

– Intrauterine growth restriction (IUGR): Fetal growth restriction can affect lung development and increase the likelihood of PPHN.

3. Complications during pregnancy or childbirth:

– Placental abnormalities: Conditions like placental abruption or placenta previa can decrease oxygen supply to the fetus and contribute to the development of PPHN.

– Premature birth: Preterm infants are at higher risk of PPHN due to incomplete lung development.

– Meconium aspiration syndrome: When a newborn inhales meconium (the first stool) during delivery, it can cause lung inflammation and contribute to PPHN.

Goal

To study predictive factors in the development of Persistent Pulmonary Hypertension in newborns.

Material and methods of research

This cross-sectional survey was conducted among the cases of inpatients from the hospital of India. Instead of collecting data using google form platform as a survey I used community based survey. Questionnaire was made and given to the patients.

Survey. A retrospective analysis of 30 medical records of inpatients who were in the pediatric department was conducted from July 2023 to August 2023. Instead of collecting data using Google form platform as a survey I used community based survey.

A self-designed questionnaire was developed and given to them. Statistical data processing was carried out using the MS Excel, Statistics 10, MedCalc software package.

The result of the research and their discussion

The median age of mothers was 26 years (25;29, $p < 0,0001$). Pregnancy parity was 1 (0;2, $p < 0,0001$, $X^2 = 31,583$, $DF = 3$) and childbirth parity was (0;2, $p < 0,0001$, $X^2 = 31,583$; $DF = 3$).

According to the study, the role of maternal and fetal health, as well as complications, in the development of PPHN is crucial to understand:

1. Maternal Health Factors (Figure 1).

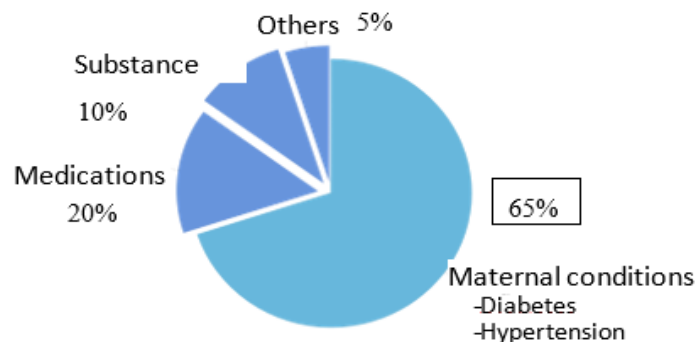


Figure 1 – Maternal Health Factors

Out of 30 patients the maternal factors were seen mainly in 6 patients, among which maternal conditions in 4 patients and medications in 3 patients etc.

2. Fetal Health Factors (Figure 2).

Out of 30 patients the fetal factors were seen mainly in 17 patients, out of which 7 have congenital anomalies, 9 have secondary disease reasons, IUGR ≥ 2 patients and others.

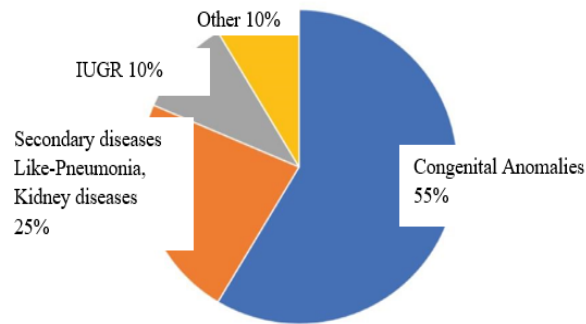


Figure 2 – Fetal Health Factors

3. Complications during childbirth and pregnancy

It was revealed that out of 30 patients, about 6 patients have premature birth and threatening of premature birth, 5 were noted Placental abnormalities like Placental Abruption, Placental insufficiency and Placenta Praevia and others have Meconium Aspiration, malpresentation and RDS, etc. which causes PPHN in newborns.

Median birth weight was 2800 g (2475; 3000, $p=0,1211$, $\chi^2=5,812$, $DF=3$).

The median Apgar score at 1 minute of life was 5,5 (5; 6, $p<0,0001$; $X^2=35,848$, $DF=3$).

The median Apgar score at 5 minute of life was 5,0 (5; 6, $p<0,0001$; $X^2=78,717$ $DF=3$).

Total premature babies born=10 out of 30.

Total full-term babies born=20 out of 30.

Av. Max gestational age=36 (for premature babies born) – acc. To data gained=42 (for full-term babies born) – acc. To data gained

Av. Min gestational age=31 (for premature babies born) – acc. To data gained=39 (for full-term babies born) – acc. To data gained

The symptoms of persistent pulmonary hypertension of the newborn (PPHN) can vary but often include:

1. Rapid or labored breathing
2. Cyanosis: Infants with PPHN may appear bluish or dusky in color, particularly around the lips, tongue, or extremities. This is a sign of inadequate oxygenation.
3. Rapid heart rate: as the body tries to compensate for the decreased oxygen levels.
4. Lethargy or decreased activity
5. Low blood pressure:

It is important to note that these symptoms can also be signs of other respiratory or cardiac conditions, so it is crucial to seek immediate medical attention if a newborn is displaying any of these symptoms. Early diagnosis and treatment are essential in managing PPHN and improving outcomes.

The median days of hospital stay for children with primary pulmonary hypertension was 5 (5; 10, $P=0,0004$, $\chi^2=20,561$, $DF=4$).

Conclusion

In conclusion, persistent pulmonary hypertension in newborns is a complex condition influenced by various factors. Maternal health, including pre-existing medical conditions and the use of certain medications, as well as complications during pregnancy and childbirth, can contribute to the development of PPHN. Fetal factors, including genetic variations and intrauterine

growth restriction, also play a role in the susceptibility to the condition. Understanding these factors is essential in the prevention, diagnosis, and management of PPHN, ultimately improving outcomes for affected newborns.

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INCIDENCE AND CAUSES OF NEONATAL JAUNDICE IN A POPULATION INDIA

Introduction

Neonatal jaundice is a yellowish discolouration of sclera and skin of new born due to high bilirubin level. Neonatal jaundice is a common cause of mortality and morbidity in new born babies and account for up to 60% cases in term and 80% in preterm babies in the first week of life. Common causes of neonatal jaundice are physiological jaundice, breast feeding jaundice, breast milk jaundice, prematurity & various pathological causes like ABO incompatibility, Rh incompatibility, biliary atresia, neonatal hepatitis, neonatal sepsis, deficiency of G6PD enzyme, hypothyroidism and rare conditions such as Gilbert’s syndrome etc. If Neonatal jaundice is not treated on time, especially in premature babies, unconjugated hyperbilirubinemia may lead to kernicterus, a serious neurological problem manifesting in the form of hypertonia, seizures, opisthotonus posturing and eventually can lead to death or cerebral palsy as long-term sequel. Direct hyperbilirubinemia is always pathological and should be promptly evaluated and treated either by medical or surgical means. In this study we have tried to find the common causes of neonatal jaundice in the newborns admitted in our hospital with hyperbilirubinemia. Studies have been done previously to find the causes of hyperbilirubinemia in newborns, but more studies are required from different geographical areas to see the burden and causes of neonatal jaundice so that a collective effort can be made to decrease the burden of neonatal mortality and morbidity resulting from neonatal hyperbilirubinemia.

Goal

To study and evaluate the incidence and causes of neonatal jaundice in babies admitted in the hospital.

Material and methods of research

The Study was conducted in one of the busiest hospitals of Jorhat, Assam. A Hospital based case control observational study and Duration of Study was conducted within a year. In this study include non physiologic jaundice for that require evaluation {onset of jaundice occurs before 24 hours of age, elevation of serum bilirubin requires phototherapy, a rise in serum bil-