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The role of magnesium sulfate in the treatment of persistent **pulmonary hypertension** in the **neonate**: our experience in King Hussein Medical Centre (KHMC).

Persistent pulmonary hypertension in neonates (PPHN) is a critical condition caused by a failure in normal cardiac-pulmonary adjustment after birth; many factors can interfere with this process, such as meconium aspiration, Parenchyma lung disease, sepsis, intrauterine and/or **prenatal hypoxia**, and abnormal pulmonary development.

Objectives:

The treatment of persistent acute pulmonary hypertension of newborn remains controversial and has been tried in various treatment modalities. This study was conducted to evaluate the effect of magnesium sulfate (MgSO₄) as a treatment for persistent pulmonary hypertension of the newborn (PPHN) and its outcome

Methods:

This study is a retrospective review of a neonate with PPHN treated with magnesium sulfate (MgSO₄) at King Hussein Medical Centre (KHMC) **neonatal intensive care units** during the period of January to December of 2018. Nineteen newborn babies admitted to the neonatal intensive care units (NICU), with respiratory failure and profound **hypoxemia** resulting from persistent pulmonary hypertension, were enrolled in the study. All patients underwent the following tests: full blood count, kidney function test, arterial blood gas, **blood culture**, chest x-ray, and echocardiograms.

All patients with congenital heart disease excluded from this study. Statistics and data described in terms of median, mean \pm standard deviation (\pm SD) frequencies and percentages. Statistical calculations were carried out using Microsoft Excel 2010 computer programs and the Statistical Package for the **Social Sciences** (SPSS) version 18.

Results:

The total number of 19 cases of PPHN from 10155 deliveries, by year, admitted to neonatal units at KHMC during 2018. Male newborns with PPHN were 10 (52.6%), while the **female newborns** were 9 (47.4%). The number of newborns with lung hypoplasia was 4 (21.1%), prematurity was 7 (36.8%), respiratory distress syndrome (RDS) was 12 (63.2%), sepsis was 9 (47.4%), congenital diaphragmatic hernia was 2 (10.5%), birth asphyxia was 2 (10.5%). Sildenafil used in 4 (23.53%) cases treated with magnesium sulfate. The number of deaths was 7 (36.8%).

Conclusion:

This study provides evidence that magnesium sulfate can play a part in the therapy of PPHN. It is a non-aggressive treatment of short-duration and low cost.

Biography:

Alaeddin Ali Saleh currently working as a professor in **King Hussein Medical Centre**, Jordan. He published many articles on neonatal & neonatal care and his research interests are **pulmonary hypertension** in neonate, **neonatal care** and pediatrics.

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Received: March 15, 2022; **Accepted:** March 17, 2021; **Published:** March 25, 2022