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DIAGNOSTIC ACCURACY OF ECHOCARDIOGRAPHIC PARAMETERS ON THE THIRD DAY OF LIFE IN PREDICTING SPONTANEOUS CLOSURE OF DUCTUS ARTERIOSUS IN PRETERM NEONATESPhyo Phyo Myint, Wai Lin Tun, Zin Mar Thin. *Myanmar*

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Background Patent ductus arteriosus (PDA) is a common problem in preterm very low birth weight neonates. While PDA is known to have negative impact on neonates, treatment of PDA has its own complications, and not all PDAs need treatment. Therefore, echocardiographic parameters which might help in the management of PDA will be useful for clinicians.

Objectives To study diagnostic accuracy of echocardiographic parameters on the third day of life in predicting spontaneous closure of ductus arteriosus in preterm very low birth weight neonates

Methods A hospital-based cross-sectional descriptive study was performed in Neonatal Intensive Care Unit (NICU) of 550-bedded Children Hospital, Mandalay, over one year period (from January, 2019 to December, 2019). A total of 63 preterm neonates with birth weight ≤ 1.5 kg and/or gestational age ≤ 32 weeks, who had patent ductus arteriosus were studied. Gestational age assessment was made by using the New Ballard Scoring System. On the third day of life, echocardiographic measurement of ductal diameter and LA/Ao ratio was done by the neonatologist. The measurements made by the neonatologist were reviewed and corrected if necessary by the pediatric cardiologist. Decision to treat PDA was made by the neonatologist based on the NICU protocol. On the tenth day of life, patent ductus arteriosus was re-assessed echocardiographically.

Results On the third day of life, most of the PDAs (67.6%) had ductal diameter < 1.6 mm. The number of PDAs with LA/Ao ratio < 1.5 and those with LA/Ao ratio ≥ 1.5 were almost equal (31 vs 32). On the tenth day of life, 47.6% of neonates with PDA had spontaneous ductal closure, 38.1% had persistent PDA and 14.3% had ductal closure after treatment. Spontaneous ductal closure was more commonly observed in PDAs with ductal diameter < 1.6 mm than those with ductal diameter ≥ 1.6 mm (61.3% vs 15.7%). There was a statistically significant association between ductal diameter and spontaneous ductal closure (p value = 0.001). The diagnostic accuracy of ductal diameter in predicting spontaneous ductal closure is 68%. In the neonates with LA/Ao ratio < 1.5 , 64.5% had spontaneous ductal closure on the tenth day of life. In those with LA/Ao ratio ≥ 1.5 , 31.2% had spontaneous ductal closure on the tenth day of life. There was a statistically significant association between LA/Ao ratio and spontaneous ductal closure on the tenth day of life (p value = 0.008). The diagnostic accuracy of LA/Ao ratio in predicting spontaneous ductal closure is 66%. In PDAs with ductal diameter ≥ 1.6 mm and LA/Ao ratio ≥ 1.5 , only 11% had spontaneous ductal closure. The diagnostic accuracy of ductal diameter and LA/Ao ratio in combination is 70%.

Conclusions In this study, ductal diameter and LA/Ao ratio on the third day of life were found to have acceptable diagnostic accuracy in predicting spontaneous ductal closure on the tenth

day of life. When ductal diameter and LA/Ao ratio were used in combination, diagnostic accuracy was found to improve marginally.

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THE IMPACT OF 100 DAYS OF COVID-19 LOCK-DOWN ON THE EMOTIONAL HEALTH OF SCHOOL CHILDREN IN AN URBAN INDIAN SETTINGJohn Cheri Mathews, Deepa Elizabeth Mathew, Natasha Susan John, Joe Johnson, Sanju George. *India*

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Background In response to the WHO recommended measures of physical and social distancing to mitigate person-to-person transmission, most countries decided to close schools as part of a physical distancing policy to slow transmission of COVID-19 and to ease the burden on health systems. Schools were closed in more than 160 countries by mid-July 2020 due to the COVID-19 pandemic. Public health measures taken to prevent the spread of the pandemic can potentially impact the mental health of children. Not much is known about the long-term impact of large-scale disease outbreaks on the mental health of children and adolescents.

Objectives To assess the prevalence and risk factors of childhood depression during the Covid-19 lock-down among school children.

Methods After 100 days of lock-down, a voluntary, anonymous survey questionnaire was sent by *WhatsApp* to parents of school-aged children (5–16 years) in Chennai. The Short Mood and Feelings questionnaire was employed as an objective screening tool to assess depression, with a score of 12 used as the cut-off which is recommended by the Child Outcomes Research Consortium, United Kingdom. All data were analyzed using Statistical Package for Social Science (SPSS, version 17) for Microsoft Windows. A chi-squared test was used for comparison between two attributes with OR 95% CI. Multiple logistic regression was used. A two-sided p value < 0.05 was considered statistically significant. Ethics approval was obtained for this research study.

Results There were 874 responses. Our survey revealed the incidence of childhood depression to be 13.7%, indicating that children are likely to be experiencing increasing depression exacerbated by the pandemic and the lock-down. Boys were less likely to be depressed than girls (OR 0.495, P value 0.000). Eleven- to 16-year-olds were more likely to be depressed than 5- to 10-year-old children (OR 1.519, P 0.035). Children who had more than 4 hours online education were more likely to have depression (OR 1.757, P = 0.037). Children who used a cell phone for online classes were more likely to have depression compared to other devices, such as tabs or laptops (OR 2.142, P 0.000). Children who slept less than 8 hours a day were more likely to have depression (OR 2.441, P 0.000). Children who either did not sleep in the afternoon or slept less than 1 hour were less likely to have depression (OR 0.522, P 0.010). Children who were interacting with family over 1 hour per day were less likely to have depression (OR 2.985, P 0.000).

Conclusions Overzealous online education, lack of adequate sleep and failure to spend quality time with family and can negatively impact the mental health of school children. Public health policy makers and health care professionals need to acknowledge that pandemics (especially when associated with