Case report: An 1810 g female was born via emergency caesarean section at 34 weeks gestation to a primigravid 44-year-old mother for the indication of non-reassuring cardiotocograph tracing in the setting of failed induction of labour and premature rupture of membranes. Antenatal history was significant for maternal pre-eclampsia and intrauterine growth restriction with oligohydramnios on ultrasound ten days prior to delivery. The baby was delivered in good condition with Apgar scores of 8 and 10 at one and five minutes. On newborn examination a left parietal skull depression (SD) 3 cm in diameter and 0.8 cm deep was noted with no associated bruising or oedema. The anterior fontanelle was patent and soft. Head circumference was 30 cm. Detailed newborn examination including neurological examination was otherwise unremarkable. The neonate was admitted to the neonatal unit for observation due to prematurity and for investigation of the SD. A skull X-ray revealed a depression in the left parietal bone with no associated fracture and normal bone density. Appearances were consistent with congenital depression due to in utero moulding. An ultrasound of the cranial contents demonstrated a structurally normal brain and ventricular system. Due to the absence of an associated fracture or neurological deficits, no further imaging was performed and the SD was managed conservatively. When seen in the paediatric outpatient clinic at six weeks corrected gestation, normal development and a resolving SD were noted. She will be followed until six months of age as the literature recommends.

Discussion: Congenital depression of the neonatal skull is rare with an estimated incidence of 1/10,000 in western countries. The majority of cases have been linked to obstetric trauma, however a minority are believed to occur in utero. The cause is usually unknown, however it has been suggested that compression of the soft foetal skull by pressure from the sacral promontory or ischial spines of the maternal pelvis, somewhat decreased, however, it was not possible to achieve complete relief from both the clinical picture and the EEG data. The treatment included the drug Levetiracetam (Keppra), the dose increased to 40 mg/kg/day. Against this background, convulsive episodes remain. Homozygous c.1463G>T p. Cys488Phe mutation was detected in the PIGW gene (NM_178517.3) on chromosome 17q12, which encodes the synthesis of glycosylphosphatidyl inositol. This mutation is absent in population databases (EXAC, GnomAD, GenOMED), but several computer algorithms predict its potential pathogenicity. In our patient, alkaline phosphatase activity remained within the normal range. It’s described in literature that clinical manifestations similar to our patient. Thus, one of the possible causes of intractable convulsive syndrome, accompanied by characteristic phenotypic signs and, not always, high alkaline phosphatase activity, should be sought in the group of diseases caused by the biosynthesis glycosylphosphatidylinositol disease. Hopefully, over time, specific therapy will appear for these patients.
intrauterine fibroids, myomas or the foetal limbs could result in deformation.

In the case described the history of oligohydramnios may have contributed to skull depression by bringing the foetal skull into contact with the solid structures within the maternal pelvis.

Proposed treatments for congenital SD include conservative management, surgical and non-surgical interventions. The majority of skull depressions resolve spontaneously, therefore as in this case, in the absence of neurological symptoms a conservative approach of a six-month observation period is recommended.

P483 HOME OXYGEN REFERRAL IN PREMATURE NEONATES BORN IN UMHL OVER TWO YEARS PERIOD

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Background Bronchopulmonary dysplasia (BPD) has been a challenging condition for neonatologists(1). Prematurely born infants who had BPD may require supplementary oxygen at home for many months(2).

Objectives To determine the number of premature babies discharged on home oxygen over two years period in UMHL and to confirm about average gestation age at which babies were self ventilating in air.

Methodology Retrospective data of 38 babies equal to or less than 29 weeks of gestation was collected, born in UMHL from February 2016 to February 2018. Different variables were studied including Gestation at birth, Birth weight, Date of admission, Date of discharge, Gestation for self ventilation in air, Gestation of home oxygen referral and gestation at discharge. Management of Chronic Lung Disease in the form of steroids, diuretics, patent ductus arteriosus(PDA) treatment and number of blood transfusions were also looked upon.

Results Total 38 babies born in UMHL from February 2016 to February 2018, equal to or less than 29 weeks of gestation. 26%(n=10) babies were excluded from the study including 21%(n=8) babies died, 3%(n=1) chart missing and 3%(n=1) baby lost follow up. 71%(n=20) were born in the gestation range of 26 to 28 weeks and 70%(n=19) were between birth weight of 750 grams to 1250 grams. 59%(n=16) babies were self ventilating in air between 31 to 35 weeks of gestation compared to 11%(n=3) who took over 41 weeks of corrected gestational age. 4%(n=1) babies were not able to wean off from oxygen over two years period. 29%(n=8) of the babies didn’t need any intervention (Diuretics, Steroids, PDA management, Blood transfusion) during their stay in NICU while 29%(n=8) needed just one intervention. 43%(n=12) of the babies needed two or more interventions to achieve self ventilation in air.

Conclusion Only one baby out of total 28 was discharged on home oxygen over two years period and most of the babies were able to achieve self ventilation in air between 31st to 35th weeks of gestation.

REFERENCES


P484 THE USE OF MASSAGE THERAPY FOR TREATMENT OF NEONATAL HYPERBILIRUBINEMIA: A SYSTEMATIC REVIEW AND NETWORK META-ANALYSIS

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Background Neonatal jaundice is a common health problem which is expected to be seen in 60–80% of healthy newborns, with 10% occurrence of hyperbilirubinemia in neonates during first week of life. Massage therapy has been practiced for centuries to gain health benefits in infants. We aimed to evaluate effectiveness of various types of infant massage in reduction of neonatal jaundice and the need for phototherapy (PT).

Methods On 26 March 2016, we conducted electronic search term in nine databases, with inclusion of randomized controlled trials (RCTs) that investigated newborn babies receiving massage therapy with documented total bilirubin before and after the treatment. Study protocol was registered on PROSPERO, CRD42016049025. Quality assessment was performed using Cochrane risk of bias tool. Frequentist network meta-analysis (NMA) and meta-analysis (MA) were used to compare all outcomes by each day of follow-up.

Results With 363 studies initially identified, 32 were eligible for qualitative analysis and 29 for quantitative analysis. For neonates requiring PT, our NMA results showed that in 3rd day of life, massage and phototherapy (MP) was the least effective in reduction of serum bilirubin level, while acupressure massage and phototherapy (AMP) was the most effective in reduction of serum bilirubin level, while massage therapy (MT) and phototherapy (PT) was the most effective in reduction of serum bilirubin level in neonates requiring PT.

In summary comparison with PT compared with P, MP was the most in decreasing serum bilirubin level with massage and bathing, acupressure massage, and massage 3-4 times/days (M2) groups in 3rd day of life, and with massage 1–2 times/days (M1) and M2 groups in 4th day. MEP had a significant decrease in bilirubin level with massage and bathing, acupressure massage, and massage 3–4 times/days (M2) groups in 3rd day of life, and with massage 1–2 times/days (M1) and M2 groups in 4th day. MEP group had a significantly longer duration of PT compared with P, with MD 95%CI (29.09 [9.76;