Hospital from January 2009 to December 2011. Ultrasounds with Grade III or IV IVH or PVL were excluded. The data collected was grouped according to gestational age at the time of scan from 24 weeks to 32 weeks.

Results 634 cranial ultrasounds from 255 infants were reviewed. The median values show a general trend of increase as gestation increases.

Abstract 1269 Table 1 Levene Index versus Gestation

Gestation (643 scans) Weeks	Left Median(range)mm	Right Median(range)mm
24 (n=21)	7.91 (7.62–8.21)	8.02 (7.93–8.12)
25 (n=42)	8.11 (4.4–11.29)	8.17 (5.66–9.87)
26 (n=71)	8.26 (5.52–11.01)	8.02 (5.05–10.26)
27 (n=74)	8.18 (5.41–11.43)	7.73 (3.95–12.29)
28 (n=99)	8.32 (5.02–29.39)	8.24 (4.49–29.39)
29 (n=100)	8.89 (5.77–12.67)	8.39 (5.22–11.73)
30 (n=89)	9.35 (6.51–13.17)	8.61 (4.75–12.46)
31 (n=91)	8.82 (6.09–13.42)	8.2 (4.86–13.81)
32 (n=47)	9.61 (6.02–11.8)	8.62 (4.86–13.81)

Conclusion This study shows that there is a slight increase in Levene index as gestation at the time of scan increases.

1270 PREDICTIVE VALUE OF AMPLITUDE INTEGRATED EEG (AEEG) IN NEONATAL SEIZURES AND NEURODEVELOPMENTAL OUTCOME

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Background and Aim Seizures in the neonatal period represent a neurological emergency but it is often challenging for the clinician to recognize it with only visual inspection. Our aim is to evaluate the use of amplitude integrated EEG (aEEG) as a prognostic tool in neonatal intensive care unit (NICU) patients with clinical seizures in the two years follow-up.

Method Twenty-four infants with clinical seizures (Group I) and 67 infants with suspected seizure activity (Group II) were included in the study. All infants were monitored with aEEG at least 24 hours after the seizure activity were stopped. aEEG was analysed for background activity, sleep-wake cycle and seizure activity. All infants were followed up in our outpatient clinic had neurologic examination and Bayley II Infant Development Scale were done by the same neuropsychologist on the 6th, 12th, 15th and 18th months of age.

Results Median gestational age of the infants were 36.0 weeks (26^{1/7}–41^{3/7}). There was no significant difference between groups regarding to Bayley scores. Mechanical ventilation, sepsis, inotrope use were more in Group I in which there were more critically ill infant. These critically ill infants tend to have lower Bayley scores in Group I. In Group I infants with normal background activity tend to have higher Bayley scores than those of whom had discontinuous, low voltage, burst suppression activity.

Conclusion aEEG helps management of infants with seizure activity allowing continuous long-term monitoring of brain functions. Continuous background activity seems to be a good predictor of aEEG in infants with neonatal seizure.

1271 RISK FACTORS FOR INTRAVENTRICULAR HEMORRHAGE IN LESS THAN 32 WEEKS GESTATION PRETERM INFANTS - PROSPECTIVE STUDY

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Intraventricular haemorrhage (IVH) is one of the most important of morbidity and mortality causes in preterm infants.

Aim To evaluate the incidence and risk factors for IVH in ≤ 32 weeks gestation preterm infants.

Methods The study was developed in the Neonatology Dpt. of the Clinical County Emergency Hospital Sibiu between 01.01.2010–31.12.2011. The study group comprised 139 preterm infants with a mean GA of 30.26 $\pm$ 1.93 weeks (24–32 weeks) and a mean BW of 1412.99 $\pm$ 367.389g (600–2270g). The prospectively collected data were analysed using IBM SPSS 19.0 and were considered significant at a $p < 0.05$.

Results The incidence of IVH in the study group was 50.35% whilst grade 3 and 4 were encountered with an incidence of 5.03%. The preterm infants with IVH had significantly lower BW ($p < 0.000$), GA ($p < 0.000$), and Apgar score at 1 minute ($p < 0.023$). The duration of oxygen therapy, the need for surfactant administration, oxygen duration on CPAP, mechanical ventilation length and the length of hospitalization were significantly greater for the infants with IVH compared with those with normal ultrasound scans. Apnoea of prematurity, PDA and ROP were significantly associated with the presence of IVH (0.001–0.030). Being outborn was also an important risk factor for IVH.

Conclusion The analysed data showed similar results - for the incidence and risk factors for IVH - as previously published data in the literature, revealing that between the analysed factors - the severity of the respiratory distress syndrome is one of the major risk factors for IVH in preterm infants.

1272 SURVIVAL AND NEURODEVELOPMENTAL OUTCOME OF PRETERM INFANTS WITH A GESTATIONAL AGE OF 22 TO 26 WEEKS IN A REGIONAL CENTRE

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Background and Aims Counselling parents of extremely preterm infants requires knowledge on results of large population-based cohorts and contemporaneous local data.

Methods We assessed the outcome of all live-born infants 2006 to 2009 with a gestational of 22 to 26 weeks (outborns admitted to neonatal care and all inborns). At a corrected age of 24 months infants underwent Bayley Scales of Infant and Development II testing, clinical and neurological examinations.

Results There were 105 infants < 27 weeks born alive, with a median birth weight of 675 g (range 300–1300 g), of whom 23 (22%) died before discharge; (≤ 22 weeks 9/10; 23 weeks 9/18; 24 weeks: 3/22; 25 weeks 1/22; 26 weeks: 1/33). Two infants died after discharge. Complete follow-up data are available in 74 (93%) of the 80 survivors. The median MDI score was 94; >84 in 44 (59%), 84–70 in 20 (27%), and < 70 in 10 (14%) infants. The median PDI score was 98; >84 in 53 (72%), 84–70 in 12 (16%), and < 70 in 9 (12%) infants. None of the children were blind or deaf, 14 had glasses, 5 required hearing aids. Overall, neurodevelopment was classified as normal in 45 of 74 (61%) infants (22 weeks: 0/1; 23 weeks: 1/7; 24 weeks: 10/17; 25 weeks: 12/19; 26 weeks: 22/30).

Conclusions The rates of overall survival (76%) and normal neurological development among survivors (61%) were similar to contemporaneous data from for Sweden (70%) and the Stockholm area (65%), respectively.

1273 GESTATIONAL HYPERTENSION AND NEONATAL OUTCOME - MOROCCAN DATA

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The objective: Evaluation of fetal and neonatal immediate impact of pregnancy hypertensive disease, and a comparison between the severity of gestational hypertensive disease and neonatal outcome.

Materials and Methods This work was based on the analysis of the neonatology registers of the maternity service in Rabat's university hospital during 2010. we selected the newborns from mothers with gestational hypertension, and we clarified the evolutionary stage of this disease. A standardized form of farm has been established for this purpose.

Results 560 newborns met the analysis criteria, that is 3.69% of all newborns during this period. The average age of the parturients was 28±12 years. Delivery has been advocated by Caesarean in 53.2% of cases, perinatal asphyxia was associated in 12.8% of cases. The prematurity rate was 16.8%. The hypertrophy was observed in 44% and macrosomia in 3% of cases. Fetal mortality was observed in 10.7% of cases.

The preeclampsia represents 28.5% of cases, and retroplacental hematoma which is the most frequent maternal complication was 9.1%. Mortality and neonatal morbidity changes depending on maternal complications. Mortality and neonatal morbidity vary significantly according to maternal complications. In this study, the retroplacental hematoma, the helpp syndrome and eclampsia are responsible for a high rate of fetal mortality (27.5%), neonatal mortality (12%) and perinatal asphyxia (39.6%) compared to preeclampsia and uncomplicated gestational hypertension.

Conclusion There is a clear correlation between the stage of the gestational hypertension evolution and the newborn's prognosis. The latter can be improved by a correct maternal prenatal monitoring.

1274 A COMPARATIVE STUDY OF KLIMEK AND BALLARD METHODS IN DETERMINING NEONATAL MATURITY IN IRAN

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Background and purpose: Severe prematurity, as the most important factor in premature neonatal mortality, is of paramount importance and accounts for 60–80 percent of neonatal mortality without abnormalities. Therefore, by defining the exact time of fetus maturity, complications and side effects could be predicted and best decisions could be made. Since the present methods are complicated, time-consuming and stressful for the neonates, researchers decided to compare the simple Klimek method with the New Ballard method.

Methods and materials: This study is a descriptive cross-sectional research. Qualified neonates in a single group were examined for maturity by both Klimek and New Ballard methods. Neonate was examined by the first co-researcher with New Ballard method, and immediately examined by the second co-researcher with Klimek method. The second neonate was examined by the first co-researcher with Klimek method and then immediately by the second co-researcher with Ballard method. All 229 neonates were examined in this way. The examinations were done in the first 6–12 hours after birth. Analysis of data was conducted in SPSS, using Mann Whitney U and Kappa Coefficient.

Results In 74.6% (171 cases) the same gestational age was obtained by both methods ($p=0.664$). Also, determination of gestational age by Klimek method and LMP was not statistically different; and 75.9% (174 cases) the same gestational age was obtained by both methods ($p=0.943$). In 51.5% (118 cases), both methods detected mature neonates ($K=0.806$).

Conclusion The simple Klimek Method is completely compatible with the New Ballard and LMP methods in determining neonatal maturity.

1275 THE NEURODEVELOPMENTAL ASSESSMENT OF VERY LOW BIRTH WEIGHT INFANTS AT 4–6 YEARS OF AGE AND THE RELATIONSHIP WITH RISK FACTORS

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The major and minor neurodevelopmental morbidities among premature infants become an important issue because of the increase in the number of surviving premature newborns, especially in the smaller gestational age group.

The aim of this study was to examine the neuromotor outcome of the premature newborns at 4–6 years of age born with very low birth weight and to investigate the risk factors associated with this outcome.

The present study was conducted in 70 very low birth weight children born during april 2004 and june 2007. The neuromotor status of 68 children were evaluated according to Touwen. The hospital records of the children were scanned for various risk factors.

Three cases were already diagnosed and followed as CP. The remaining 65 children did not meet the criteria for CP. According to Touwen examination 28 (%41.2) children were considered as normal, 35 (%51.5) had simple minor neurological dysfunction, 2 (%2.9) had complex minor neurological dysfunction.

35 children with minor neurological dysfunction and 28 children with normal neuromotor status were compared for some risk factors. The children with minor neurological dysfunction had significantly lower Apgar score, their hospitalization period was longer and the diagnosis rate of clinical (%73.5; %25) and culture proven sepsis (%47.1; %10.7) was higher in this group.

Sepsis was significantly associated with adverse neurological outcome. The prevention of neonatal sepsis in NICU's will increase the chance for healthy neurological development.

1276 GENOTYPIC EXPRESSION OF FADS2 IN PRETERM BABIES FED EXCLUSIVELY ON HUMAN MILK VERSUS FORMULA FED

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Background Exclusively breastfed premature babies have been shown to have higher intelligent quotient scores and superior cognitive development than those deprived of human milk. However the underlying cause has not been clearly defined.

Aim The aim of this study is to measure genetic expression of FADS2 gene responsible for cognition in babies exposed to different modes of feeding.

Methods Thirty preterm babies were studied for gene expression of FADS2 at birth and three months later. They were randomized into those supported to exclusively breastfeed (15) and those exposed to the normal routine of formula feeding practices in the neonatal intensive care units.

Findings There was no difference between gene expression between the groups at birth. However FADS2 expression was shown to be significantly higher in the breast fed groups at three months of age.

Conclusions Exposure of preterms to human milk potentiates cognition through influencing transfer and/or maturation of genetic information responsible for cognition.