6.3(2–11) days. Average weight gain was 14.5g/kg/day for E1 and 17.8g/kg/day for E2 cohort (p<0.05). No patients in either epoch had necrotising enterocolitis.

Conclusions We demonstrate that feeding regime standardisation results in better early weight gain. The latter has been associated with improved long-term motor and cognitive development, as shown by Franz et al in 2009. Our sample size prohibits further conclusions. More studies including larger numbers are warranted.

**Abstract 1395**

**MASSAGE THERAPY BY MOTHER OR NURSE: EFFECT ON WEIGHT GAIN OF PREMATURE INFANTS**

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Introduction Since the introduction of surfactant the survival rate of preterm infants increased significantly. This has brought the expert’s attention to maximizing the growth and development of this fragile population. Many studies demonstrated that massage has some roles in the weight gain of preterm infants. Our aim is to compare the effect of massage therapy among those who were massaged by a nurse or mother or none.

**Method** Our randomized clinical trial has three groups;

1. The infants who only received routine care and no massage,
2. those who received massage by an expert nurse and
3. and those who received massage by their mothers.

We recorded daily weight gain, the length of stay and fluid intake. We used the Kiskral-wallis test and the SPSS software.

**Results** The gestational age ranged between 28 to 34 weeks. At the end of the fifth day the group who were massaged by a nurse had significantly more weight gain compared to the other two groups. With 6.5±1.5 for the nurse group, 14±4.6 for the mother group and 1.5±3.7 for the control group, P-value = 0.001. Those who were massaged by their mother had gained significantly more than the control group P-value=0.05. there was no significant difference in the length of hospital stay among groups.

**Discussion** Our study shows that the five days massage therapy is a safe procedure for stable preterm infants to facilitate their weight gain. Mothers can perform this procedure. However more studies are needed to increase the efficacy of their performance.

**Abstract 1396**

**CAN EARLY PARENTERAL LIPID AND HIGH DOSE AMINO ACID ADMINISTRATION IMPROVE GROWTH IN VLBW INFANTS?**

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Introduction The beneficial effects of early nutrition in preterm infants are well known. Nonetheless, almost all very low birth weight (VLBW; BW < 1500g) infants develop a protein and energy deficit in the first week of life and are growth impaired at discharged home.

We hypothesized that early parenteral lipid and high dose amino acid (AA) administration from birth onwards to VLBW infants is safe and increases growth.

**Methods** Inborn VLBW infants were randomized to one of three different parenteral nutritional regimens within 4hrs after birth (Figure).

**Study design**

Growth rates during the first 28 days of life and during total hospital stay were calculated and the incidence of common neonatal morbidities (e.g., BPD, PDA, NEC, sepsis, IVH, ROP) was recorded.

**Results** Growth was not significantly different between groups (Table; meant±SD). Mortality and the incidence of common neonatal morbidities were not significantly different between groups.