health, e.g. osteoprotegerin (OPG), s-RANKL and markers of nutritional status, e.g. somatomedin I (IgF I), leptin in malnourished infants.

The study comprised of 86 infants (42 boys and 44 girls) between the 4th and 7th months of age. According to their position of body weight and BMI at percentile charts for sex and age two groups were created: group I consisted of 54 malnourished infants with body weight and BMI (11.9) < 3rd percentile, group II consisted of 32 infants with body weight and BMI (15.5) between the 10th and 90th percentile. Biochemical investigations: OPG (pmol/l), s-RANKL (pmol/l), IgF I (ng/ml) and leptin (ng/ml) were performed in all the infants. The study protocol was approved by the Ethics Committee of Medical University of Lublin.

Statistical analysis was performed with t-Student and Spearman's correlation rank tests. $P < 0.05$ was regarded as significant.

Results: There were no statistical differences confirmed between the level of OPG and IgF I in the studied groups ($p > 0.05$). Statistical difference was confirmed for the level of leptin and s-RANKL between groups I and II ($p < 0.001$, $p < 0.05$ respectively). In malnourished infants (group I) statistically significant correlation was detected between the level of s-RANKL and IGF I ($r = 0.39$, $p < 0.05$).

Conclusion: Results of our study confirmed that malnutrition may influence bone metabolism in infants.

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ALL-IN-ONE VERSUS TWO-COMPARTMENT PARENTERAL NUTRITION IN EXTREMELY PRETERM INFANTS < 27 WEEKS GESTATION AND < 1000 G BIRTHWEIGHT (ELBWI)

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Background and aims: Evidence suggests standardized total parenteral nutrition (TPN) confers benefits over individualized TPN in terms of availability, nutritional intake, cost-effectiveness

and maybe patient safety (e.g. infections). However, it is unclear whether all-in-one or two-compartment (lipid separate) standardised preparations are more beneficial. This study aims to specifically address this question in a group of ELBWI.

Methods: A retrospective matched-pair cohort analysis was carried out of 25 ELBWI ≤ 27 weeks gestation, born at the Royal Sussex County Hospital, Brighton (UK), between January 2005 - December 2006 and January - December 2008. The early cohort received all-in-one TPN, while the later received two-component. They were matched for gestation, birth weight, admission duration, age at initiation and duration of TPN, and additional enteral feeds. Small for gestational age infants and infants with congenital anomalies were excluded. Clinical outcomes were daily weight gain, infectious and metabolic complications, and oxygen requirement at discharge. Daily cost of treatment was also compared.

Results: There was no statistically significant difference in daily growth, triglyceride and bilirubin levels, oxygen requirement at discharge or financial cost.

There was a statistically significant increase in episodes (5 [range 3-9] vs. 3 [range 1-6]; $p = 0.016$) and days of antibiotic treatment (33 [range 14-62] vs. 20 [range 5-51]; $p = 0.017$) in the all-in-one group.

Conclusion: All-in-one TPN seems to increase the risk of infection without conferring any clinical or economic benefits. Its use in ELBWI should probably be abandoned.

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CARDIOVASCULAR DISEASE SECONDARY TO VITAMIN D DEFICIENCY : CASE SERIES OF THREE CHILDREN

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Deficiency of vitamin D can result from a number of factors like inadequate dietary intake, coupled with inadequate sunlight exposure and disorders that limit its absorption. Although the most recognised complication of deficiency is musculoskeletal, there is growing awareness of its impact on the cardiovascular system.