

The data were recorded by questioner and analysis with spss 11.5. Frequency distribution, mean, standard deviation, T student, Chi square, Mann Whitney and fisher tests were used.

**Results** During the study, 150 newborn were enrolled. Ninety five of 150 (63.3%) were male and the other were female. The mean gestational age was 30.24±2.76 (minimum 24 maximum 40), the mean birth weight was 1423.76±539.25 (minimum 560 maximum 3470). The mortality rate was 42.7% (64 of 150). The most common complications were nosocomial sepsis (36.4%), pulmonary hemorrhage (18.4%), pneumothorax (16.4%), intracranial hemorrhage (10.4%) and pneumonia (8.4%).

**Conclusions** In this study the mortality rate and complications were high. Therefore pay attention to these patients is essential especially nursing patient ratio, indeed as sepsis is very common usage of disposable equipment is necessary.

#### 428 RELATIONSHIP BETWEEN BONE AGE AND PUBERTAL BREAST STAGE TO BONE BIOMARKERS AND BONE MINERAL DENSITY IN HEALTHY BRAZILIAN FEMALE ADOLESCENTS

doi:10.1136/archdischild-2012-302724.0428

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**Background and Aims** Bone metabolism involves understanding many factors, especially during puberty, when bone turnover is significant and the bone mass peak must be achieved as a protective factor of future bone health. The objective was to evaluate the behavior of formation and resorption bone biomarkers (BB) in function of biological maturation in female adolescents.

**Methods** Evaluation of formation and resorption BB, osteocalcin (OC), bone alkaline phosphatase (BAP) and carboxyterminal telopeptide (S-CTx) by correlating them with bone mineralization, bone age and pubertal development in healthy female adolescents. Seventy-two volunteers were subdivided into groups according to chronological age/bone age (BA): 10–11 years (n=12), 12–13 years (n=16), 14–15 years (n=15) and 16–19 years (n=29). The following were evaluated: weight (kg), height (m), BMI (kg/m<sup>2</sup>), calcium intake (3-day 24h food recalls (mg/day), puberty events (Tanner stages), serum OC (ng/mL), BAP (U/L), S-CTx (ng/mL) and bone mineral density (BMD) as calculated by DXA (g/cm<sup>2</sup>) in the spine (L1-L4), proximal femur and whole body. The project was approved by the UNESP Ethics Committee.

**Results** BB showed similar behaviors, with higher mean values for 10–12 years and when adolescents were in the B2-B3 Pubertal Maturation Stage (B2: BAP=110.16 U/L, OC=33.81ng/mL, S-CTx=1.66 ng/mL and B3: BAP=136.50 U/L, OC=39.15ng/mL and S-CTx=1.88 ng/mL; p<0.001). Mean BB values decreased with advancing BA and pubertal maturity.

**Conclusions** BB values showed parallelism with peak height velocity and significant negative correlation with BMD in the different evaluated sites, with chronological and BA; higher BMD values correlated with lower bone biomarker values.

#### 429 THE LEVEL OF ADOLESCENT DEPRESSION AMONG TEENS IN SERBIA

doi:10.1136/archdischild-2012-302724.0429

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**Background and Aims** The alarming number of young people tend to develop the typical clinical picture of depression. Aim is to determine the presence of depression among young people in Serbia on a representative sample.

**Methods** Socio-epidemiological surveys and the Beck Depression Inventory Assessment, completed by 2049 students of upper secondary school.

**Results** The feeling of loss of energy and fatigue was the most common symptom, 40.1% of young people answered yes to this question 0.34.4% of respondents have difficulty concentrating and making decisions, and 31.6% state that what is bothering them is a feeling of sadness and despondency.

The feeling of decreased self-esteem occurs to 24.5% of respondents, 22.2% of them have no more interest in usual activities. Feeling excessive guilt is confirmed by 21.7% of students, and 19.8% think in the pessimistic way about the future. Problems with appetite have 16.5%, and 15.6% have sleeping problems. 9.0% of young people often think about death or suicide.

**Conclusions** All these data, especially the one about thinking about suicide, tell how frequent depressive symptoms are and how much they can be dangerous. Although depressed mood is one of the developmental characteristics of adolescence, this many young people who show a tendency to develop this disorder is certainly alarming and require additional efforts in order to counteract this trend.

#### 430 BOERHAAVE'S SYNDROME (SPONTANEOUS ESOPHAGEAL RUPTURE) AN UNUSUAL SEQUELE OF A COMMON SYMPTOM

doi:10.1136/archdischild-2012-302724.0430

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Boerhaave's syndrome (BS) or spontaneous esophageal rupture is rare in children. It is thought to result from a sudden increase in the intraesophageal pressure during retching combined with negative intrathoracic pressure. Classically BS presents with vomiting, subcutaneous emphysema and thoraco-abdominal pain (Mackler's triad). We reported a 14 year old girl who was previously well presented to a Tertiary Care Centre Emergency Department with a 24 hour history of retrosternal chest pain and upper abdominal discomfort following three days of frequent retching and intense vomiting.

She was in moderate pain and afebrile; heart rate was 100 per minute with respiratory rate 24 per minute. Palpation of both suprascapular fossae and her left axillary fossa revealed crepitus indicating the presence of subcutaneous emphysema. Auscultation of cardiorespiratory system was normal and her abdomen revealed mild epigastric tenderness with no rebound phenomenon, masses or organomegally.

Her chest x ray revealed evidence of subcutaneous emphysema and mediastinal air, an upper GI study with water soluble contrast showed extravasation of the contrast from the distal segment of the esophagus into the mediastinum compatible with the diagnosis of spontaneous esophageal rupture or Boerhaave's syndrome. She was admitted and treated conservatively with intravenous fluids, antibiotics and nil per os with resolution of her symptoms in 48 hours and resolution of mediastinal air in 72 hours. Subsequent endoscopy was grossly and histologically normal.

#### 431 THE EFFECT OF SPORTIVE ACTIVITY ON BONE MINERAL DENSITY DURING ADOLESCENCE

doi:10.1136/archdischild-2012-302724.0431

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