GYNECOLOGICAL MORBIDITY OF SCHOOLGIRLS IN IRKUTSK-CITY

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Objective: *to study the gynecological morbidity of schoolgirls and to compare it with the data of the other regions.*
Methods: *profound medical examination of schoolgirls aged 7-15 years (n= 1408), statistical analysis by the method of calculation of average and relative values, estimate of reliability using t criterion.*
Results: *42 per cent of examined children have gynecological diseases. Intensive total index is 86.9+1.2; on the nosologic forms: disturbance of sexual development-11.7, anomalies of development and structure of genital organs-13.9, disturbances of menstrual cycle-12.7 inflammatory diseases of genitals-28.0, neuroendocrine syndromes-17.2, pathology of mammary glands-3.6, tumors of ovaries-0.3, cases per 100 patients (p>0.05). The structure of gynecological morbidity: the first place-32.3 per cent - inflammatory processes; the second one - 19.8 per cent – neuroendocrine syndromes, the third – 15.9 per cent – anomalies of development and structure of genitals; the fourth – 14.7 per cent – disturbances of menstrual cycle; the fifth – 13.4 per cent – disturbances of sexual development; the sixth – 3.6 per cent – mammary gland pathology; the seventh – 0.3 per cent – follicular cysts of ovary. Inflammatory diseases of genitals take the leading place at the age of 7-12 years and neuroendocrine syndromes take the leading place at the age of 13 -15 years.*
Conclusions: *the indices of gynecological morbidity and its structure differ significantly from the data of other regions of Russia. The gynecological morbidity of schoolgirls in Irkutsk – city is considerably higher than in west regions of Russia and its causes must be investigated.*

I. IMMATURITY OF THE LUNGS: NEONATAL PERSPECTIVE - DEVELOPMENT OF THE LUNG

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Despite dramatic improvement in the three past decades in the perinatal care hyaline membrane disease and RDS continue to be a major cause of morbidity and mortality of premature babies accounting 28-70% of neonatal deaths. Immuturity of the lungs is the main predisposing factor for development of chronic lung disease in as many as 20% of survivors. Therefore, maturation of the lungs is still a primary concern for the obstetrician who is taking care of the pregnant women as well, as for the neonatologist responsible for the care of the newborn baby.
Development of the lung. *The development of the lung begins in the 24- to 25-day-old embryo as an outpouching of the gut. Up to 16th week of gestation (embryonic and pseudoglandular phases) lung's grow consists of further branching of the endodermal tube into surrounding mesenchime. By the end of this phase, a total of about 20 generations have developed and the last eight generations being called bronchioles. At 16-17 weeks of gestation canalicular period of lung development begins. The canalization of the primitive airways progresses. Up to 28th week of gestation basic structure of gas-exchanging portion of the lungs is formed and vascularized. However, prior to approximately 23 to 24 weeks of gestation, airway and capillary proliferation are insufficient for gas exchange and this gestational age remains the lower limit for extrauterine survival in most infants. At about 28 weeks penultimate stage of lung development begins (saccular period). There is a marked decrease in the prominence of the interstitial tissue and airspace walls become narrow and more compact with sudden increase in lung volume and surface area. Starting from 36 weeks (alveolar period), true alveoli begin to arise from alveolar ductus and subsaccules become alveoli. At term gestation about 50 million alveoli are present (alveoli increase in number until approximately 8 years of age reaching adult number of 300 million).*
Initially the future acini are lined with cuboidal epithelium. By 18 to 20 weeks of gestation granular pneumocytes (type II cells) can be distinguished by appearance of lamellar inclusions. These cells is the site of surfactant synthesis. Flattened membranous pneumocytes (type I cells), the site of gas-exchange, first appear at 23-24 week of gestation