Background and Aims Second disbioses of the respiratory tract may play a role in the pathogenesis of respiratory distress. The aim of the present study was to detect the presence of disbioses at the beginning of antiphthisic treatment and to establish its association with tuberculosis outcome.

Methods We investigated 24 children with the first diagnosed Pulmonary Tuberculosis (FPT) in the age from 1–16 years. Research of microflora of respiratory tracts was conducted by a bacteriologic examination of native material (expectoration).

Results On the basis of the conducted researches are set presence of respiratory disbiosis in children with the FPT.

Conclusions Disbioses of the respiratory tract may play a role in the pathogenesis of respiratory distress. Disbioses as a disturbance of mucous membranes of respiratory tract.

Abstracts

RESPIRATORY DISBIOSES IN THE CHILDREN WITH FIRST DIAGNOSED TUBERCULOSIS doi:10.1136/archdischild-2012-302724.0592

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PERSISTENTLY ELEVATED RIGHT VENTRICULAR INDEX OF MYOCARDIAL PERFORMANCE IN PRETERM INFANTS WITH INCipient BRONCHOPULMONARY DYSPLASIA doi:10.1136/archdischild-2012-302724.0593

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RISK FACTORS FOR BRONCHO-PULMONARY DYSPLASIA IN VERY-LOW-GESTATIONAL-AGE INFANTS doi:10.1136/archdischild-2012-302724.0595

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A neonatal rat model of bronchopulmonary dysplasia induced by pre- and postnatal inflammation without exposure to hyperoxia doi:10.1136/archdischild-2012-302724.0594

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Purpose We tested if pre- or postnatal inflammation can develop BPD per se and if there are any interaction between prenatal and postnatal inflammation.

Methods Two days before delivery (E20), 1 µg of lipopolysaccharide (LPS) or vehicle (V) was injected into each amniotic sac, and after birth 0.25 mg/kg of LPS or vehicle was injected into peritoneum on P1, P3, and P5. This led to four experimental groups. On P7 and P14, their lungs and hearts were harvested, and alveolarization and lung vascular density were evaluated.

Results Morphometric analysis of P7 lungs revealed that both preLPS+postLPS group and V+postLPS group had significantly larger and less complex airspaces and small alveolar surface area than V+V group. On P14, only V+postLPS group had significantly larger and less complex airspaces than V+V group. However, alveolar surface areas were significantly smaller both in preLPS+postLPS group and V+postLPS group than in V+V group. Lung vascular density of both preLPS+postLPS group and V+postLPS group was significantly lesser than V+V group.

Conclusions At these intra-amniotic and postnatal systemic LPS doses, prenatal intra-amniotic LPS injection per se did not affect postnatal alveolar and pulmonary vascular development, while postnatal systemic LPS injection significantly inhibited alveolar and pulmonary vascular development regardless of whether prenatal intra-amniotic LPS was injected or not. There was no definite interaction between intra-amniotic LPS and postnatal systemic LPS on the lung development. This rat model of BPD could be used as a valuable tool for testing the effect of anti-inflammatory agents on the prevention of BPD.