

BASES OF MENTAL RETARDATION

ETIOLOGY & PATHOGENESIS OF MENTAL RETARDATION. PART II



EXOGENOUS FACTORS

- **органические патогенные факторы**
 - antenatal (intrauterine)
 - perinatal (during childbirth)
 - postnatal (postpartum)
- **socio-environmental pathogenic factors**

STRUCTURE OF ANTENATAL FACTORS

- **biological agents**
 - viruses and bacteria
- **chemical agents**
 - lead, phenol, alcohol, medicines
- **physical agents**
 - electromagnetic radiation
 - ultraviolet radiation

VIRAL AND INFECTIOUS DISEASES DANGEROUS TO THE FETUS

- ▶ rubella
- ▶ cytomegaly
- ▶ HIV
- ▶ flu
- ▶ toxoplasmosis
- ▶ listeriosis
- ▶ syphilis

CONGENITAL RUBELLA

(main symptoms – Greg's triad)

- ▶ **cataract** (75%)
- ▶ **heart defects** (50%)
- ▶ **deafness** (50%)

CONGENITAL RUBELLA

(additional symptoms)

- ▶ **microcephaly, microophthalmia**
- ▶ **fontanel enlargement**
- ▶ **brain damage**
- ▶ **skeletal malformations**
- ▶ **genitourinary malformations**
- ▶ **hepatomegaly & splenomegaly**

CONGENITAL CYTOMEGALY

(main symptoms)

- ▶ **microcephaly**
- ▶ **cortical atrophy**
- ▶ **ventricular dilatation**
- ▶ **intrauterine growth retardation**
- ▶ **hearing loss**
- ▶ **hepatomegaly**

CONGENITAL TOXOPLASMOSIS

(main symptoms)

- ▶ multiple malformations
- ▶ increased intracranial pressure
- ▶ epilepsy
- ▶ blindness
- ▶ retardation of psychophysical development and speech
- ▶ mental retardation

CONGENITAL SYPHILIS

(main symptoms)

- ▶ damage of the skin and mucous membranes (pemphigus)
- ▶ sensorineural hearing loss
- ▶ optic atrophy
- ▶ Getchinson's teeth
- ▶ saddle nose
- ▶ saber-shaped tibia
- ▶ mental retardation

MEDICINES INFLUENCING ON THE BRAIN OF THE FETUS

- antibiotics
- sulfonamides
- barbiturates
- hormonal
- antitumor
- anticoagulant



STRUCTURE OF PERINATAL FACTORS

- ▶ abnormal structure of the placenta
- ▶ facial or gluteal presentation of the fetus
- ▶ weakness of labor
- ▶ prolonged labor
- ▶ anatomically narrow pelvis



STRUCTURE OF POSTNATAL FACTORS

- ▶ **neuroinfection**
(encephalitis, meningoencephalitis)
- ▶ **severe intoxication**
- ▶ **traumatic brain injuries**
- ▶ **clinical death**