



The Impact of Maternal Health on the Risk of Developing Dacryocystitis in Newborn Babies

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Dacryocystitis of newborns (DN) occurs at a rate of 1 - 14% of all newborns, being one of the most common inflammatory diseases of the eyes and its appendage in children in the first year of life. There is a steady tendency to increase the frequency of DN. In modern ophthalmology, there is no unambiguous understanding of etiology and pathogenesis of DN. In this regard, the nature of the disease is treated as an intermediate state between the anomaly of the tear-thequeuntary pathway and the acquired pathology of newborn children.

The mother is the main source of infection for the fetus and newborn. Since 2001, researchers have noted an increase in the incidence of gynecological diseases, infectious-inflammatory urinary tract diseases, genital infections in pregnant women and women of reproductive age. About a quarter of pregnant women who do not make any complaints are sexually infected, and 70% of all pregnant women have disabilities. Inflammatory pelvic diseases are the leading in the structure of gynecological pathology, the most commonly detected in women of active reproductive age from 15 to 49 years of age. Between the onset of sexual life (16.08 ± 0.04 years) and planned pregnancy (28 - 29 years) takes more than a decade, and one in four sexually active girls before the on-

set of adulthood manages to change three or more sexual partners, with only 70.9% of sexually transmitted diseases. Frequency of vaginal infections in the surveyed M.S. Selikhova with co-author (2019) patients were high from 79.01 to 86.1%. The erased clinical forms of the disease prevailed. According to the Russian Ministry of Health, three out of four women have had time to contract sexually transmitted diseases by the time of pregnancy.

We retrospectively analyzed data of outpatient cards and medical histories of 724 children with DN (868 eyes). The health status of mothers who gave birth to children who developed DN was studied. Somatic pathology was detected in 14.4% of mothers who gave birth to children with DN. Gynecological diseases were present in 8.5% of women, the frequency of sexual infections in mothers was 19.5%.

There are data on the embryotoxic effect of hyperthermia influenza in the mother; influenza strain H1N1, pandemic influenza in the first trimester of gestation on the fetus up to its intrauterine death, increased risk of spontaneous termination of pregnancy, increased frequency of developmental abnormalities and even involvement in the inflammatory process of the eyes, tear ducts and

orbit in newborns in the case of the syngetonal. The analysis of this aspect revealed that 65.9 per cent of women who had given children with DN had had influenza or SARS in the first trimester of pregnancy. These diseases, as well as possible hyperthermia in them, are believed to be risk factors for the fetus, which is quite consistent with the inflammatory theory of the origin of DN due to intrauterine infection. In most mothers of children with DN pregnancy was carried out with complications: most often complications were in the first trimester of pregnancy - in 74.7% of cases, in the second trimester - 21.8% and in the third trimester - 3.4%. The pathological course of pregnancy is most often observed in the first trimester, when the fetus is most vulnerable. Thus, the mother who gave birth to a child with DN initially had sexual infection and/or gynecological and/or somatic pathology, which can be considered as an unfavorable background for the normal formation of the fetus. However, the maternal factor, as a risk factor for the development of DN, is not currently taken into account.

Staphylococcus epidermidis (46.1%) were the most common microbiological flora from the contents of the tear bag and tear pathways in the children we surveyed with phlegmonous DN and *Staphylococcus aureus* (10.3%). *Streptococcus pneumoniae* and *Streptococcus SPP* were isolated with the same frequency (5.1%), *Streptococcus epidermidis* and *Streptococcus mitis* were also at the same frequency of 2.6%. Other pathogens were sown at 15.4%. In isolated cases, there were dangerous pathogens of nosocomial infections, *Staphylococcus aureus*, *Stenotrophomonas maltophilia*, *Acinetobacter calcoaceticus var. Lwoffii*, *Acinetobacter baumannii*, *Pseudomonas aeruginosa* and *Klebsiella pneumoniae*. Almost similar was the microbial landscape of the conjunctiva of the paired, intact eye contralateral side - the most common were *Staphylococcus epidermidis* (41.2%), *Streptococcus SPP* (17.6%), *Streptococcus pneumoniae* (11.8%), *Streptococcus G* - (2.9%). Among other pathogens in 14.7% of cases were single representatives of nosocomial infections. The predominance of conditionally pathogenic flora in phlegmonous DN corresponds to data on the pathogens of pelvic inflammatory diseases in women of reproductive age, according to M.S. Selikhova with co-author (2019). However, in the case of vaginal infections in women in the Volgograd region, in most cases there were *Enterobacteria* (*Escherichia coli*, *Streptococcus faecalis*, *Streptococcus faecium*, *Streptococcus viridans*), as opposed to the data we received. The fact that nosocomial infections

are detected in the sowing of tear pathways in confirms the opinion of a number of researchers about dacryocystitis of newborns as a hospital-acquired infection. At the same time, influenza or SARS suffered by most mothers during pregnancy may also be a risk factor for the development of DN. At the same time, influenza or SARS suffered by most mothers during pregnancy may also be a risk factor for the development of DN. In total, in 28% of cases, mothers had gynecological pathology and/or sexual infections.

Thus, the currently uncoated maternal risk factors confirm the priority role of infection in the etiology and pathogenesis of the dacryocystitis of newborns and are consistent with the theory of the development of the disease.

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