NON-IMMUNE HYDROPS FETALIS – IS CURRENTLY THE PREDOMINANT FORM OF HYDROPS FETALIS

Despite of numerous advances in the diagnosis and treatment of diseases in the perinatal period, non-immune hydrops fetalis currently remains relevant and plays a significant role in the structure of perinatal morbidity and mortality. Hydrops fetalis is a polyetiological disease, which is characterized by a pathologically excessive accumulation of fluid in the serous cavities and soft tissues of the fetus [1-3]. Hydrops fetalis is the last stage for a number of intrauterine diseases. Hydrops fetalis according to the ICD X revision is divided into: 1) hydrops fetalis due to hemolytic disease (immune hydrops fetalis – P56) and 2) hydrops fetalis that is not associated with hemolytic disease (non-immune hydrops fetalis – P83.2). Currently, given that the frequency of immune hydrops fetalis has decreased due to the widespread prophylaxis of Rh sensitization, non-immune hydrops fetalis has become the dominant form of hydrops fetalis [2,3]. Among all cases of hydrops fetalis, non-immune hydrops fetalis is up to 90% [1,2].

The aim of this study is to study and analyze the case history of patients with diagnosed hydrops fetalis and on the basis of this to develop a clear algorithm for the introduction of such patients.

Materials and methods. We have analyzed the case histories of 5 patients (between December 2019 and February 2020) with a diagnosis of hydrops fetalis. All woman were hospitalized in the department of pregnancy pathology of our center, where they were examined and received treatment.

Results. Of 5 cases, one of the examined patients had immune hydrops fetalis and the other 4 patients had non-immune hydrops fetalis. 4 of the examined patients have complicated obstetric and gynecologic anamnesis. In the anamnesis of 2 patients was observed antenatal fetal death associated with immune and non-immune hydrops fetalis. One of the examined patients with diagnosis non-immune hydrops fetalis was occurred chorionic angioma and one of them had a cystic malformation of the lung in the fetus, and in 1 patient was occurred twin-to-twin transfusion syndrome. In 1 patient, examination revealed parovirus B19. 3 patients underwent intrauterine interventions: amnioreduction, transabdominal cordocentesis, intrauterine blood transfusion (IBT), the effect is short-lived. In the fetus of 1 patient had paroxysmal tachycardia and was treated with cardiac glycosides, with positive results. In one patient with immune hydrops fetalis, the process of re-IBT was...
complicated by bradycardia in the fetus and ended with intrapartum fetal death in an emergency caesarean section. In 3 patients birth were performed by caesarean section, and in 2 cases, birth were performed by natural birth ways. All of them preterm birth. 1 case was followed by intranatal fetal death, 1 child died after 2 months, and all the rest were alive.

**Conclusions.** The following studies should be carried out for patients at risk: ultrasound, fetal dopplerometry, screening for infection, antibody titer during Rh immunization. Treatment methods require a multidisciplinary and highly qualified assistance in the form of cordocentesis with purpose of karyotyping, drug treatment in dependence on the detected infection (antibiotic therapy, human immunoglobulin), amnioreduction for polyhydramnios, intrauterine blood transfusion for hemolytic anemia, transabdominal thoracocentesis or thoraco-amniotic shunt for fetal hydrothorax, and the search for new invasive methods and approaches, because hydrops fetalis is difficult to treat conservatively.

**References:**


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**THE MAIN STAGES OF DIAGNOSIS IN SPINAL INJURY**

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The frequency of injuries of the spine and spinal cord is up to 4% - 7% of the total number of CNS injuries [6]. Injury to the spine can occur due to falls from a height, accidents, injuries during sports, etc. There are many types of spinal injuries: bruises and fractures, torn ligaments, dislocations and subluxations, displacement of the vertebrae (spondylolisthesis). Injuries are also divided into: uncomplicated (without damage to the spinal cord), complicated (with damage). In this case, damage to the spinal cord can be either reversible or irreversible [2,4]. With all the variety of forms, timely diagnosis of spinal cord injury is important to start timely treatment. At the prehospital stage, the history should be clarified: the time and place of the injury, the circumstances of the injury and its mechanisms (flexor, extensor, flexor-rotational, compression, knife or gunshot wounds) [3]. The state of the victim is determined immediately after the injury (impaired consciousness, pulse, the presence of respiratory disorders, the state of sensitivity, the presence of movements in the limbs, the passage or retention of urine and feces), the presence or absence of signs of