

ABSTRACT

The bachelor thesis focuses on the issue of maternal alloimmunization in pregnancy and deals with diagnostic and management of the alloimmunization. This complication would occur in approximately 2000 women in the Czech Republic per a year without a treatment. A pregnant woman is at risk if she is Rh(D) negative and the fetus inherits Rh(D) positivity from father. The development of alloimmunization can be prevented by early preventive dosage of anti-D globulin. Despite a systematically organized system of prophylaxis, a small number of pregnant women still experience immunization. Fetuses are at risk of developing anemia in the uterus and then after birth by developing hyperbilirubinemia. In the most severe cases of intrauterine anemia, the solution is intraumbilical transfusion of erythrocytes.

The aim of this study was to summarize the outcomes of IUT in retrospect. The quantitative practical part is completed with 2 model study cases of hydrops fetalis.

The quantitative part of the research analyzes the results of all IUTs performed in the period from 1991 to 2021 in the Center of Fetal Medicine of the Gynecology and Obstetrics Clinic of the General Hospital and the First Medical Faculty of Charles University in Prague. Using tables and graphs, the data were then analyzed and described in detail.

The research part of this bachelor thesis showed that the treatment of fetuses using IUT is very successful and increases the chances of fetuses for positive postpartum adaptation. From the results we can also say that performing IUT either once or repeatedly is always beneficial for anemic or hydropic fetus. The risks of performing an operation always have a better prognosis than continuing in pregnancy without treatment.

Keywords: Rh alloimmunisation, pregnancy, antigen, antibody, intrauterine transfusion, anemia, hydrops, hemolytic disease of fetus and newborn