ANTIRADICAL ACTIVITY OF FERMENTED COW COLOSTRUM

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A comparison of antioksidant activity of colostrum, hydrolysate and colostrum filtrate hydrolyzate of colostrum was made. It was found, that the level of antioxidant activity depends on the degree of processing of the material.

Keywords: colostrum, antioxidant activity, fluorescein.

At the moment, topical issues is the use of promising biologically active components for functional products. Colostrum is a valuable product because it has a higher nutritional and biological value than mature milk. It increased the content of easily digestible whey proteins, protective immune factors such as immunoglobulin A, lactoferrin, leukocytes-macrophages, neutrophils, lymphocytes, as well as natural antioxidants, which are vitamins A and E, β-carotene, zinc, selenium).

The aim of the work was to obtain and to compare the dependences of fluorescence intensity of fluorescein on the concentration of fat-free colostrum, hydrolysates of fat-free colostrum obtained by enzymes of alkalase and neutrase, and filtrates of hydrolysates of fat-free colostrum.

During the work was found that fermentation and subsequent ultrafiltration have a significant effect on the increase of antioxidant properties of the sample. The choice of enzyme also increase the antioxidant properties. The best results was shown by the filtrate of the hydrolysate of skimmed colostrum obtained by the enzyme alkalase.

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PREGNANCY, CHILDBIRTH AND PERINATAL OUTCOMES IN WOMEN OF LATE REPRODUCTIVE AGE WITH INDUCED PREGNANCY

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The study analyzed the data on the course of induced pregnancy and perinatal outcomes in women of late reproductive age in the program of in vitro fertilization (IVF).The causes of infertility, the health status of women of late reproductive age of the IVF program, as well as the course of pregnancy and childbirth were studied.The assessment of the course of the early neonatal period of children of the IVF program from mothers of late reproductive age was carried out.

Keywords:in vitro fertilization, infertility, multiple pregnancies, late reproductive age.

In Belarus there are about 10 thousand women and 2 thousand men suffering from infertility. Because of health problems, about 14 percent of couples can't have children. The chance to become parents is given by modern medical technologies, and in particular, the method of in vitro fertilization. In the Republic of Belarus, about 1,500–1700 IVF are performed every year, 500–700 of which end in childbirth. In total, more than 5,000 children were born in Belarus with this method [3].

In recent decades more and more women around the world are considering their optimal reproductive age as the period of the greatest social activity and career growth, postponing motherhood for a later time [1].

To distinguish pregnant late reproductive age in a separate group are data on the gradual decline in the function of the reproductive system after 30 years.Age changes in the body of women, according to most authors, are a risk factor for complications of pregnancy, childbirth and the postpartum period, which makes it possible to classify such a pregnancy as "problematic" [2].

The aim of the study was to study the peculiarities of pregnancy and perinatal outcomes in women of late reproductive age of the in vitro fertilization program.

To conduct their own research and evaluate perinatal outcomes in women of late reproductive age, the IVF program examined medical records (birth histories) (n = 30) and newborn medical cards (n = 40).

The average age of women was between 30 and 45 years. The duration of the infertile period of women of the IVF program of late reproductive age from 5–15 years. The main causes of infertility were: endometriosis (20.0%); endocrine pathology (20.0%), tubal peritoneal factor (13.3%), uterine fibroids (13.3%), male factor (10.0%), combined factor (6.7%).

In the majority of women (96.7%) of the late reproductive age of the IVF program, pregnancy took place against a background of somatic pathology and an aggravated obstetric-gynecologic history (TORCH infection – 93.3%, anemia of pregnant women – 30.8%, ICI – 36.5 %).

In 76.6% there was a threat of miscarriage, which in 23.3% ended with premature birth. In 80.0% of cases, deliveries were performed operatively in connection with complications in the ante- and intranatal periods, hypoxia.

The state of children at birth, from mothers of late reproductive age in 22.5% was unsatisfactory, which was associated with hypoxic CNS damage in the ante- and intranatal periods.There was a tense period of early postnatal adaptation, which manifested itself as morphofunctional immaturity (20.0%) and post-hypoxic CNS damage (10.0%).

Thus, women of late reproductive age after induced pregnancy constitute a high risk group for miscarriage, development of gestosis and placental insufficiency.

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