

mcl) and B- ( $13,9 \pm 1,5\%$  and  $192 \pm 8,4$  per mcl) lymphocytes, moderate enhancement of their blast conversion and migration inhibition index increase ( $62,08 \pm 2,07\%$  and  $33,65 \pm 3,14$ ), circulating immune complex level increase (light transmission percentage decrease up to  $65,4 \pm 2,289\%$  in PW with gestosis) have been detected. So, the activation of LPO processes, blood AOA inhibition and evident immune depression can be evaluated as the components of gestosis pathogenesis in PW. Preventive treatment was carried out for 68 PW from the gestosis risk group in terms of 20-22 and 30-32 weeks during 10-14 days. Besides the general pathology treatment the action on the peripheral circulatory dynamics was provided; antioxidant therapy (Chophytol), metabolic disorders' and immune shifts' correction was carried out. The I degree gestosis frequency reduced 2,4 times as much, II degree – 1,4 times, III degree – 1,1 times. Thus, early being registered, gestosis risk groups forming, carrying out complex preventive therapy will allow decreasing gestosis frequency and severity in PW.

The article is admitted to the International Scientific Conference « Practicing physician “III Congress: Current problems of Sanatorium-and-spa treatment in solving “National Health” Program and providing year-round work of resort branch », Sochi, 2007 April 10-12; came to the editorial office on 15.03.07

#### **NORMOBARIC HYPOXITHERAPY AS AN IMPORTANT FACTOR OF NON-MEDICATION TREATMENT OF ARTERIAL HYPERTENSION NON-ADULTS**

Vlasenko A.V., Dolgikh V.V., Rychkova L.V.,  
Goldberg A.Ye.  
*SB RAMS Clinic, Irkutsk, Russia*

Normobaric hypoxitherapy, that is breathing with an oxygen mix with a reduced content of oxygen, concerns perspective preformed physical factors which are successfully used in treatment of children and teenagers with arterial hypertension. The data for arterial hypertension prevalence among non-adults vary rather widely and make from 4,8 to 14,3 %.

On the basis of RAMS SB Clinic normobaric hypoxitherapy correction was received by 89 arterial hypertension teenagers. According to the age composition the distribution was as follows: there were 61 (68,5 %) boys, 28 (31,5 %) girls; there were 40 (44,9 %) children aged from 12 to 15, and older than 15 - 49 (55,1 %) teenagers. The findings got were compared to the ones of the control group balanced quantitatively, by sex and age with the basic one. The research was carried out on a hypoxicator “Everest-1” (Russia), МПФК.941589.001-05ПЦ. The course of treatment consisted of 10 daily manipulations carried out in morning hours with obligatory observance of not less than 30 min interval after meal. Breathing with hypoxic mixture was carried out by a mix in an interval mode (3:1, 5:1). We had been modified the technique of carrying out normobaric hypoxitherapy depending on the age and seance number of the children and teenagers. In the course beginning the exposition did not exceed 10 min with gradual increase up to 40 min. Further seance lasting time was inappropriate as could cause unwished vegetative reactions. Arterial tension indices were chosen to be the efficiency criteria. The following results were obtained. In the group receiving normobaric hypoxitherapy the dynamics of arterial tension indices was as follows: at the age of 12-15 the average arterial tension level was 131,9/75,2 (higher 95percentile) before the treatment, a significant arterial tension decrease up to 117,5/72,2 (corresponds to 90percentile) was registered after the treatment; in teenagers older than 15 - 133/81,1 (higher 95percentile) before the treatment, 114,9/71,9 (lower 90percentile) – after the treatment. In the control group average arterial tension index changes turned out to be less significant: they corresponded to 95percentile in children aged 12-15, and 90percentile - in teenagers older 15. More over, disappearance of concomitant complaints – cephalalgia, dizziness, asthenic implications, instable moods – conditioned by vegetative disfunction, was marked in 83,2% of the cases in the children receiving normobaric hypoxitherapy. While in the control group subjective complaint regress was registered only in 43,1% of the cases.

Thus, including normobaric hypoxitherapy in rehabilitation complex for arterial hypertension non-adults authentically decreases arterial tension

indices and promotes concomitant complaints regress, that improves life quality and social adaptation of teenagers with arterial hypertension and allows recommending the specified physical factor to application.

---

The article is admitted to the International Scientific Conference « Practicing physician “III Congress: Current problems of Sanatorium-and-spa treatment in solving “National Health” Program and providing year-round work of resort branch », Sochi, 2007 April 10-12; came to the editorial office on 13.03.07

### **ANALYSIS OF PERINATAL MORTALITY AMONG YOUNG MOTHERS**

Dudnichenko T.A., Bayrasheva V. K.

*The St. Petersburg State Medical Academy  
named after I. I. Mechnikov*

Despite decline in the birth rate among women of reproductive age, a steady increase of pregnancies and births among very young women has been observed in Russia in recent years. Repeated studies have shown that pregnancy and birth complications occur much more often among very young women than among 20-25 year-olds, and perinatal fetus mortality among the 13-17 years old women reaches 9.1-18.7%.

The purpose of our study was to analyze the structure of perinatal fetus mortality among 13-18 years old women.

Subject matter and methods of our research were as follows. 192 cases of perinatal fetus death in very young women, who had given birth at the maternity homes №10 and №15 of the city of Saint Petersburg, Russia in the last 20 years, were retrospectively analyzed. There were 83, 35 and 56 cases of antenatal, intranatal and postnatal death of fetuses, respectively.

Results and discussion: our analysis showed that asphyxia (36.9%), intrauterine fetus infections (35.4%) and congenital abnormalities (18.8%) were the top three causes of perinatal fetus death among young women. These were followed by birth trauma (6.1%), pneumonia (2.2%) and hemolytic disease (2.0%). The frequency of asphyxia causing perinatal death was not constant: it was 45.7% in the antenatal period and 19.4% in the postnatal period. Opposite data was obtained during studies of

intrauterine infection causing perinatal death of fetuses and newborns. It was the highest (53.6%) in the postnatal period. Congenital abnormalities causing fetus death were the highest (7.2%) and the lowest (3.6%) in the antenatal and postnatal periods, respectively. Intranatal birth trauma led to the death of newborns in 7.5% of cases, whereas consequences of the postnatal birth trauma – in 14.3%. Hemolytic disease caused fetus death in the antenatal period in 4.8% of cases.

Considering implications of the age issues for perinatal fetus mortality, it is necessary to point out that intrauterine infection was the number one cause of fetus death among 13-15 years old women. It remained the highest in both antenatal (4.8%) and postnatal (3.6%) periods.

Asphyxia was the main cause of the perinatal loss (21.7%) among 16-17 year-olds. At the same time, in that age group, generalized intrauterine infections (5.7%) were the main source of fetus death in the early neonatal period. The most frequently occurring cause of fetus death among 18 year-olds was also asphyxia (20.5%), however, 41.2% of death cases that took place in the first seven days after the birth were due to generalized infection.

Based on the above information, the following conclusions can be drawn. For all age groups,

it is of paramount importance to control influence of infections as it was number one cause of perinatal mortality among young women. Therefore, preventive measures against perinatal mortality among young mothers should include sanitation of infection sources.

---

The article is admitted to the International Scientific Conference « Section of young scientists, students and specialists», Seyshely, 2007 May 10-17; came to the editorial office on 31.03.07