Currently hypoxic-ischemic encephalopathy (HIE) of newborns takes a leading position (47% of cases) among all perinatal central nervous affections. Although the risk of hypoxic-ischemic injury of central nervous system is significantly higher in preterm and low birth weight (LBW) infants, among term infants with an adequate to gestational age body weight this condition is not rare (on average 2 to 9 cases per 1000 deliveries). However, data on the features of the early adaptation period of the term newborns with HIE depending on birth body weight are still limited and conflicting.

**The aim.** To study the particularities of early adaptation period of the term newborns with hypoxic-ischemic encephalopathy depending on their birth body weight.

**Materials and methods.** In the department of neonatal pathology of the Chernovtsy Regional Children Clinical Hospital 41 newborns with hypoxic-ischemic encephalopathy have been examined. The first (I-st) clinical group has been formed from 28 term neonates with corresponding to gestational age body weight. The second (II-nd) clinical group included the remaining 13 low birth weight newborns. The comparison groups did not differ significantly on the main (sex and age) clinical characteristics. These survey results have been analyzed by parametric (Pt, Students’ criteria) and nonparametric (Pφ, Fisher's angular transformation) methods of biological statistics.

**Results.** Although the average maternal age did not differ significantly in observation group (26,2 years old in the I-st clinical group and 25,1 years old in the II-nd comparison group, P> 0,05), quota of mothers aged 30 years and older came to one-third (28,6%) of cases in the I-st clinical group but only 15,4% of observations in LBW newborns with HIE (Pφ> 0,05). At the same time, maternal age < 20 years has been registered in 10,7% cases of the I-st clinical group and in 15,4% of mothers of LBW neonates with HIE (Pφ>0,05).

Despite the fact that representatives of both groups of observations were related to term infants, patients of the II-nd group were born in probably less gestational age. Thus, the gestational age averaged 39,5±0,3 weeks (minimum - 37
and maximum - 41 weeks) in the newborns of the I-st clinical group, but 38,5±0,4 weeks (minimum - 37 and maximum - 42 weeks) in the LBW neonates with HIE (P <0,05). At that, infants of the II-nd clinical group were born twice as likely (84,6% of cases) under the 40th week of gestation (in term of 37-39 weeks) than neonates of the I-st clinical group (42,9% of patients; P <0,03).

Newborn infants from I-st group of supervision were born as a result of pathological delivery (by cesarean section, vacuum-assisted delivery or by the help of drug induction) are twice as likely (32,1% of cases) to the II-nd comparison group (15,4% of cases Pφ > 0,05).

An thus, tight nuchal cord with development of the newborns’ distress during delivery has been occurred in a quarter (25%) infants of I-st clinical group, but only in one (7,7%) LBW neonates (Pφ <0,05). At the same time, pathological amniotic fluids (thick, meconial or hemorrhagic) have been registered in a third (32,1%) cases of the I-st clinical group versus 7,7% of cases in the comparison group (Pφ <0,05).

Severe asphyxia (Apgar 1-st minute score ≤ 4 points) has been diagnosed in every fifth (22,2%) patients of the I-st clinical group and only in 7,7% cases among LBW newborns (Pφ> 0,05). At once, in neonates with low to gestational age body weight after the first minute of life the respiratory problems, requiring artificial lung ventilation, have been occurred twice as often (61,5% of newborns in the II-nd group vs. 35,7% of infants in the I-st clinical group, Pφ <0,05).

In the early neonatal period some newborns (14,3% of cases in the I-st group and 7,7% of children in the II-nd group; Pφ> 0,05) postasphyctic multiple organ dysfunction syndrome has been developed, while only representatives of the I-st clinical group have had convulsive syndrome (17,9% of infants) compared with no cases in the II-nd group of supervision. At one time, according to the ultrasound of the heart, in the first ten days of life the signs of overload of the right heart chambers have been registered in every third newborns of the I-st clinical group (28,6%), but only in 7,7% of cases in the II-nd comparison group (Pφ <0,05).
**Conclusions.** The early adaptation period of term newborns with hypoxic-ischemic encephalopathy and an adequate to gestational age body weight is characterized by: pathological delivery in one third (32,1%) of cases and the birth of a quarter (25%) of the infants with tight nuchal cord that three times often (22,2% of neonates) led to severe asphyxia, associated with the development of the multiple organ failure syndrome (14,3% of cases) and seizures (17,9% of patients). In the term low birth weight neonates with hypoxic-ischemic encephalopathy the following features of early adaptation period were observed: lower gestational age (37-39 weeks) at birth (84,6% of newborns), which associated in 15,4% of cases with maternal age < 20 years, and twice as likely (61,5% of cases) led to the development of respiratory disorders at birth, requiring artificial lung ventilation.