OBJECTIVES

The number of newborns born before the term are increasing. Equipment of the maternity hospitals and perinatal centers gives an opportunity to nurse these babies even with extremely low mass of the body. The impact of environmental factors on an immature auditory analyzer may reduce the hearing function. There are still not enough data on inner ear functions of premature infants.

The aim of our work was to estimate the acoustic response power (ARP) in babies born with extremely low mass of the body in first 6 months of life.

METHODS

We analyzed 138 DP-grams from 210 premature infants born before 28 weeks of gestation at 3 and 6 months of actual life. The inclusion criteria were the successfully passed otoacoustic emission test (OAET) and type «A» tympanogram in high-frequency tympanometry (1 kHz). Data were subjected to static handling in program SPSS (IBM, USA).

RESULTS

The average ARP in premature infants born before 28 weeks at 3 months was 7.1 +/- 1.3 dB and at 6 months – 7.2 +/- 1.1 dB. It did not differ significantly (p=0.8) from those in full-term babies. The analysis of individual rates of ARP has shown the reduction less than 5.7 dB in 32% of cases in first 3 months and less than 6.1 dB in 33% of cases at 6 months.

CONCLUSIONS

Evaluation of individual ARP is important for hearing loss and deafness early diagnosis in preterm babies with extremely low mass of a body in the first 6 months of life.