[Cytomegalovirus infection--diagnostic and therapeutic difficulties in neonatal intensive care unit].
[Article in Polish]
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Abstract
BACKGROUND AND AIM: Lack of routine diagnostic test in most of pregnancies, not prominent symptoms in newborn, not satisfactory diagnostic test, no screening and lack of therapeutic consensus create difficulties in CMV treatment in neonatal period.

AIM: Evaluation of frequency of CMV infection, way of making diagnose and treatment in NICU.

MATERIAL AND METHODS: This is retrospective cross-sectional study included 1491 newborns in period from 1.05.2003 till 8.11.2009 treated in NICU. In case suggested CMV infection diagnostic tests were performed: viral detection in urine, specific IgG and IgM level, and in few cases viral detection by PCR in blood or cerebrospinal fluid. According to the positive results above tests, the treatment with Gancyclovir or Foscavir was introduced.

RESULTS: 27/1491 patients had CMV infection. 16/27 presented symptoms for 3rd week of life (59%). 10/27 died, 2 because of generalized CMV infection. 13/27 were treated (11 with Gancyclovir, 2--Foscavir). For first 3 weeks of life 139/1491 had diagnostic tests, 86 later (Me: 13 day, 25%-75%: 5-32 day). The viral test in urine specimen was performed in 166/1491 (all with CMV infection). First test was positive in 19/27 cases of CMV infection, 2/27 cases had test not for interpretation and 6/27 had negative. The sensitivity of this test was 76%, specificity 100%. Serologic tests were performed in 68/1491 before 3rd week of life, 18/1491 later (Me: 7 day, 25%-75%: 3-16 day). The sensitivity of IgM test was 15.4%, specificity 100%, IgG sensitivity 93.3%, but specificity 28%. High IgG level > 100 AU/ml had sensitivity 75%, specificity 58.8%. 16/1491 neonates had viral test with PCR (9/27 with CMV infection), sensitivity was 66.6%, specificity 100%.

CONCLUSION: Quite often lack of early symptoms, not satisfying sensitivity of urine viral test and IgM, low specificity of IgG make problematic diagnosing of CMV infection. 2 cases of death because this infection should be taken under discussion on indications for treatment.