



## The diagnostic value of the detection anti-HCV IgM to different Hepatitis C antigens

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**Aim:** The diagnostic value of the anti-HCV IgM is investigated not enough. The aim of this study was to evaluate the ELISA kit “DS-EIA-anti-HCV-IgM-SPECTR” intended for separate detection of anti-IgM to different HCV antigens.

**Objectives and methods:** The various recombinant antigens comprising HCV Core, NS3, NS4, NS5 were separately adsorbed on the microtiter plate. Diagnostic value of the test was studied by testing samples (n=1507) from HCV-infected patients, samples from infants born to HCV-positive mothers in dynamics, from healthy blood donors.

**Results:** It has been estimated that 70% of anti-HCV IgG positive specimens also contained anti-HCV IgM. About 90% of them had anti-IgM to two or more HCV antigens. Anti-core IgM and anti-NS3 IgM were detected more frequently (68% and 61% samples subsequently).

Good correlation between the presence of HCV RNA and the detection of anti-HCV IgM have been estimated. Almost 90% of HCV RNA-positive samples were anti-HCV IgM positive.

All samples from babies with acute hepatitis C diagnosed in the age of 3-5 months had anti-Core IgM alone or with anti-NS3 IgM and were HCV RNA positive. The significant increase of anti-Core IgM concentration was specified to 9-10 months and anti-NS IgM to 9-18 months and indicated to the development of chronic hepatitis C.

**Conclusion:** The detection of anti-HCV IgM may be a specific tool for diagnosis of HCV viremia. The measurement of anti-IgM to different HCV proteins may be important for diagnostics of perinatally transmitted HCV infection and as a predictive factor of persistent infection.

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