OCCULT HEPATITIS B INFECTION AND RESIDUAL RISK.

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Introduction

Hepatitis B is a worldwide public health problem. It is estimated that at global level there are over 2 billion people infected in life.

Material

A particular form of HBV infection identified by molecular biology in recent years, occult HBV infection is. IOB is defined by the presence of HBV DNA in liver tissue, sometimes in person's serum, HBs Ag absent. IOB prevalence is unknown, despite numerous studies showing the disadvantage of including a relatively small number of people, the lack of standardization of laboratory tests, which almost all are retrospective. Regarding the apparently healthy population, the prevalence was investigated IOB blood donors and more than in the general population.

IOB blood donor's prevalence is much lower in developed countries, unlike the one significantly higher in developing countries. In the general population it was found in 16% of cases studied. IOB were advanced in the pathogenesis of these assumptions: host immunity, viral interference, and epigenetic factors. Diagnostics for detecting HBV DNA at very low serum using technology requires sensitive and specific PCR or NAT. By using real-time PCR can be detected most occult infections (<10 copies / ml).

Over 92 million blood donations are collected globally every year. A single blood donation in products labile, can reach three people and stable products from a single donation can reach hundreds of patients. Although testing is increasingly drawn towards increased transfusion safety is unanimously recognized the existence of a residual risk of HIV, HCV, HBV, WNV, CMV, etc. Screening donated blood for infectious diseases is a key measure of safety, worldwide, to protect patients, which prompted the introduction of NAT in many countries since 1997, according to the epidemiological situation and the financial potential of the country.

IOB transmitted infection can be transmitted by transfusion in liver transplantation, hemodialysis and bone marrow transplantation. Although post-transfusion hepatitis risk is now very low, risk of infection through transfusion of blood products is still very high (1: 100,000) compared to HCV (1: 700,000), and HIV (1: 2,000,000). Post-transplant liver from HBV infection risk donor is IOB 25-94%, but is lower than after bone marrow transplantation. IOB prevalence is higher in hemodialysis patients (14-19%)

Conclusion

IOB is a complex biological entity, mainly related to indefinite persistent HBV DNA in hepatocytes and strong suppression of viral replication. IOB unable essential contribution eradication of HBV infection. In Romania IOB prevalence remains unknown, it is underdiagnosed entity. IOB can be transmitted by transfusion, perinatal and liver transplantation. Testing for anti-HBc, anti-HBs, anti-HBe blood used in transfusions as an option. Blood testing by real time PCR notable remains an option for Romania.