NESTED-PCR DETECTION AND GENOTYPING OF HEPATITIS C VIRUS IN COLSAN-UNIFESP BLOOD DONORS

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Hepatitis C virus (HCV) is specially transmitted by blood transfusion. It is detected using 2nd generation ELISA tests targeted to capsid HCV antibodies. The present work was designed to compare one year screening of blood bank samples of donors without disease complain using immunological and molecular HCV tests. The serum hyaluronic acid content was also investigated. We have studied 590 positive ELISA donors samples; all these samples were submitted to a 3rd generation ELISA test (antibodies directed against the capsid and the core proteins) and to Nested-PCR genomic amplification. We have detected 332 samples (56.3%) positive to both ELISA tests and the presence of HCV genome in 208 samples (35.2%). The genotyping in positive HCV PCR-detectable samples shows 83.6% HCV type 1 virus, 1.1% HCV type 2 and 15.3% HCV type 3. Hyaluronic acid is significantly increased in 70.2% positive HCV PCR-detectable samples. The immunological and molecular tests comparison demonstrated that 60% HCV positive ELISA tests do not correspond to positive viral genome detection in blood donors of COLSAN-UNIFESP and hyaluronic acid quantification could be an important test point out to viral infection.

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