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TO STUDY THE PREVALENCE OF ANTIBODY TO PARVO VIRUS B19 (IgM + IgG) AMONGST BLOOD DONORS

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Objective

To determine the prevalence of antibody to Parvovirus B19 and Parvovirus B19 viral DNA in blood donors.

Method

A total of 1633 samples were screened for IgM and IgG class antibodies in human serum against Parvovirus B19 from October 2007 to February 2008. ELISA for qualitative determination of IgM class antibodies against Parvo Virus B19 in human serum/plasma among healthy blood donors was done. Donors whose samples were tested positive for antibodies for Parvo Virus B 19 by ELISA for IgM or IgG were further selected for PCR analysis.

Results

Initial 540 samples were screened for both IgM and IgG class antibodies and remaining 1093 samples which screened only for IgM class antibodies. Net prevalence of IgM class antibodies to Human Parvo Virus B 19 in study was 7.53 % and prevalence of IgG antibodies was 27.96 %. Dual positivity was 2.40 % (13 out of 540). Out of total 261 samples tested positive for Parvo Virus B 19 through ELISA, none were tested positive for Parvo Virus B 19 DNA by nested PCR.

Recommendations

Safe cellular blood products as recommended are to be administered to all high risk group patients. Patients other than those in high risk groups should continue to receive blood products that have been produced in accordance with current safety criteria. Samples collected for blood transfusion should be screened for Parvo Virus B 19 using IgM ELISA, and may be supplemented through sensitive nucleic acid testing methods such as real time PCR.