



Transmission of West Nile virus by transfusion

The Centers for Disease Control and Prevention (Atlanta, GA, USA) recently announced the identification of a few cases of West Nile virus infection likely contracted by blood transfusion. In addition, Brad J. Biggerstaff (Division of Vector-Borne Infectious Diseases, CDC, Fort Collins, CO, USA) and Lyle R. Peterson recently published a paper describing a statistical model which suggests that the prevalence of viremia among potential blood donors during the New York 1999 epidemic was of the order of 1,8 cases per 10 000, which would fully justify blood donor screening.

Biggerstaff, B. J. and Petersen, L. R., **Estimated Risk of West Nile Virus Transmission Through Blood Transfusion During an Epidemic in Queens, New York City**, *Transfusion* 42 (8) : 1019-1026 (2002) (doi : 10.1046/j.1537-2995.2002.00167.x).

Pathogenic prion elimination during plasma fractionation

VanHolten (Ortho-Clinical Diagnostics, Raritan, NJ, USA) et al.'s results indicate that plasma product ultrafiltration allows to reduce pathogenic prion infectivity by a factor of > 100X. In addition, Peter R. Foster's team (Scottish National Blood Transfusion Service, Edinburgh, United Kingdom) demonstrate that current plasma fractionation methods reduce infectivity to undetectable levels.

VanHolten, R. W., et al., **Removal of Prion Challenge from an Immune Globulin Preparation by Use of a Size-Exclusion Filter**, *Transfusion* 42 (8) : 999-1004 (2002) (doi : 10.1046/j.1537-2995.2002.00160.x).

Reichl, H. E., et al., **Studies on the Removal of a Bovine Spongiform Encephalopathy-Derived Agent by Processes Used in the Manufacture of Human Immunoglobulin**, *Vox Sang* 83 (2) : 137-145 (2002) (doi : 10.1046/j.1423-0410.2002.00211.x).

Anti-HIV antibodies detectable before viremia

Working with newly infected HIV individuals, Miles W. Clloyd and his team (University of Texas Medical Branch,

Galveston, TX, USA) has identified antibodies recognizing native forms of viral proteins generally associated with infected cells. Interestingly, these antibodies are often the very first sign of infection, occurring even before a detectable viremia can give rise to positive p24 antigen or nucleic acid tests.

Chen, J., et al., **Detection of Antibodies to Human Immunodeficiency Virus (HIV) That Recognize Conformational Epitopes of Glycoproteins 160 and 41 Often Allows for Early Diagnosis of HIV Infection**, *J Infect Dis* 186 (3) : 321-331 (2002).

Clinical trial results of a polymerized bovine hemoglobin-derived blood substitute

Gus J. Valhakes' team (Massachusetts General Hospital, Boston, MA, USA) have evaluated the efficacy of a blood substitute made up of polymerized bovine hemoglobin (HBOC-201, Biopure Corporation). Results suggest that the use of this blood substitute during coronary bypass surgery leads to a modest reduction in allogeneic blood utilization.

Levy, J. H., et al., **Polymerized Bovine Hemoglobin Solution as a Replacement for Allogeneic Red Blood Cell Transfusion After Cardiac Surgery : Results of a Randomized, Double-Blind Trial**, *J Thorac Cardiovasc Surg* 124 (1) : 35-42 (2002) (doi : 10.1067/mtc.2002.121505).

Infusion of autologous bone marrow to treat peripheral gangrene

A group of specialists in angiogenesis, led by Hiroaki Matsubara (Kansai Medical University, Osaka, Japan), has carried out local injection of autologous bone marrow to treat peripheral gangrene. The spectacular results of this approach confirm that bone marrow is a valuable source of blood vessel-forming cells.

Tateishi-Yuyama, E., et al., for the Therapeutic Angiogenesis using Cell Transplantation (TACT) Study Investigators, **Therapeutic Angiogenesis for Patients with Limb Ischaemia by Autologous Transplantation of Bone-Marrow Cells : A Pilot Study and a Randomised Controlled Trial**, *Lancet* 360 (9331) : 427-435 (2002).