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### CALICIVIRUS (GENUS VESIVIRUS) ASSOCIATED WITH POST-TRANSFUSIONAL HEPATITIS

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The first calicivirus was described 75 years ago in California in a foot-and-mouth-like epidemic in swine. Control measures were slaughter and burial of all affected pigs. However, epidemic spread among swine continued for 24 years, then the disease disappeared. The virus was declared eradicated, but was re-discovered 16 years later in aborting marine mammals in the Pacific Basin. Sixty-six years after discovery, the first human infections were published as a blistering disease of the hands, feet and face. This virus, (genus Vesivirus) with large, diverse ocean reservoirs in fish, shellfish, seals and whales had become a human pathogen. Pathogenic vesiviruses can be associated with abortion, encephalitis, myocarditis, pancreatitis, blistering, hemorrhagic death and hepatitis among domestic animals, zoo-animals and marine mammals. Human involvement is less defined except for blistering and as we report here, hepatitis. Over 1000 sera collected from blood-donors, both normal and with suspected liver disease and from clinical hepatitis cases in the USA and Europe, all testing negative for known hepatitis viruses, were tested for vesiviral antibodies. ELISA tests compared 5 antigen preparations (3 individual vesivirus serotypes, FCV-F9, SMSV-9, and 7420, a pool of 3 additional serotypes, SMSV types 5,13 and 17, and a recombinant peptide, D3A). Vesiviral sero-specificity was supported by positive results using western blot, a riboprobe, and RT-PCR amplification. Viruses FCV-F9 and SMSV-9 detected no difference in prevalence of vesiviral antibody between groups (about 2-3% positive). The remaining three antigens gave an antibody prevalence of 12% in normal populations, double that in individuals with evidence of liver disease and 47-60% positive in cases of post-transfusional hepatitis. We conclude that these data provide evidence of a vesiviral induced hepatitis, which can be transfusion transmitted. We propose calling this newly described disease hepatitis vesiviral (HVV).