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Human Parvovirus B19 and three novel clinical associations : Non-occlusive Bowel Gangrene, Amegakaryocytic Thrombocytopenia and Myositis complicating Erythema infectiosum

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Human parvovirus B19 (B19) is a newly emerging DNA virus causing wide range of clinical infections but many remains unveiled; hence three novel clinical associations re-confirmed by real-time PCR are highlighted. **Study I** : Gangrene of stomach or intestines owing to non-occlusive bowel infarction is rare (1% of all laprotomies) with unknown etiology. Since vascular endothelium has receptor for B19 it may cause vasculitis, arteritis and localized micro-vascular thrombi formation hence B19 infection was hypothesized. B19 genome was found in sera of all 8 cases (anemic, reticulocytopenic) by PCR (VP1-VP-2 & VP1 unique) while three cases had B19 DNA in resected bowel tissues besides anti-B19 IgM and IgG antibodies in sera. Histopathology showed loss of bowel mucosa fibrin thrombus in gastric vessels. (Indian J Med Res 2010). **Study II**: A 9 months old male child had purpura, epistaxis and intra-cerebral hemorrhage. Bone marrow showed absence of megakaryocytes. B19 specific IgM, IgG antibodies in sera and B19 DNA in both serum and bone-marrow were detected. I.V.I.G. treatment cleared B19 infection. Later bone marrow aspirate showed normal population of megakaryocytes and child became normal and healthy. (Br J Haematol 2005). **Study III**: A 9 years old female child presented with fever, anemia and generalized erythematous rash. Later developed arthralgia, myalgia and calf tenderness (myositis) and was unable to walk despite any neurological deficit. Her CPK was highly elevated (twice) while parvovirus B19 specific IgM antibodies and DNA was detected in serum. Child recovered after one month of conservative treatment (Indian Pediatr 2006).

Biography

Graduated in medicine, did M.D. (Microbiology) in 1985 from A.I.I.M.S. New Delhi. Joined (1990) as Faculty University of Sanjay Gandhi Post-Graduate Institute of Medical Sciences, now Professor in Clinical Virology. Earlier Associate Editor Indian J Virology; Member National Academy of Medical Sciences and American Societies. Fellowship, JICA Japan. Teaching for 29 yrs, got best paper awards, Reviewer for American J Gastroenterol and others journals. Organized conferences, Chaired sessions, Invited Guest speaker at International conferences. Published over 50 papers (25 as first author, 18 in International Journals). Did pioneer work on parvovirus B19 in India and published three novel clinical associations.