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- * A newly identified virus, known as Parainfluenza Virus-5, a member of the rubulavirus family, has been found in 96% of blood samples and 91% of spinal fluid samples from patients with this disease. Active Parainfluenza Virus-5 infection has been identified by two independent research groups [Robbins; Knox and Carrigan].
- * Parainfluenza Virus-5 targets innate immunity via direct destruction of Stat1, a critical protein found in lymphocytes that is responsible for interferon movement within the cell [Alcami; Horvath; Didcock].
- * The loss of Stat1 in patients with this disease has been confirmed by three independent research groups [DeMeirleir; Suhadolnik; Knox and Carrigan]. Loss of Stat1 constitutes a serious illness that may ultimately be fatal due to the fact that this leaves the patient unable to fight bacterial and viral infections thereby resulting in severe immune deficiency [Dupuis; Durbin]. Patients are frequently seen with multiple secondary opportunistic infections with researchers labelling this disease as a form of AIDS [Klimas].
- * Immune disruptions have been frequently documented in these patients as evidenced by abnormal changes in CD4/CD8 ratio, absolute changes in lymphocyte or T-cell counts (typically lymphopenic); changes in CD19 B-cell counts either diminished (Common Variable Immune Deficiency/CVID) or increased (Leukemia). This is reflective of a slow indolent malignant process. Recent bone marrow biopsies confirm an indolent leukemia in some patients [NCF]. Patients may test abnormal for kappa/lambda light chains reflective of B-cell lineage aberrations consistent with CVID or leukemia [Uckun; Johnson; Hilgers].
- * 95% of all patients test positive for ciguatera toxin reactivity in their blood samples [Hokama] with ciguatera previously confirmed by other researchers [Racciatti; Pearn; Stommel; Martin]. Sodium channel activation is associated with cellular excitation, neurologic symptoms and malignant invasiveness [Cameron; Allsop; Chretien; Fraser].
- * Dramatic alterations to circulating blood volume have added to further restrict patient daily activities [Streeten] with exercise capacity and performance directly related to immune dysfunction [Snell; Nijs; DeBecker]. Abnormal changes in heart rate and blood pressure are frequently present [Streeten].
- * In a recent publication, the three most prevalent causes of death of these patients were heart failure, suicide and cancer with the mean age being considerably younger than those who died from the same causes in the general population [Jason].