HEREDO-DEGENERATIVE DISEASE

GENETIC TESTING IN HUNTINGTON'S DISEASE

The historical and clinical profiles of Huntington's disease (HD) presenting in 44 juveniles who were tested for CAG repeat expansions in the gene for HD were defined in a study reported by the US Huntington Disease Genetic Testing Group from the Hennepin County Medical Center, Minneapolis, MN. CAG repeat expansions were present in 33 and absent in 11 patients. All patients with CAG expansions had a positive family history of HD. Features of HD presenting in 12 children (having 80 or more CAG repeats) during the first decade included a family history of HD, usually in the father, and two or more of the following: declining school performance, seizures, oral motor dysfunction, rigidity, and gait disorder. Three young children with less CAG expansions had incomplete, atypical clinical profiles. More varied symptoms, usually behavioral and motor, occurred in HD presenting in the second decade. Patients not showing CAG expansions had atypical symptoms. Diagnostic genetic testing for HD in an at-risk child with incomplete or atypical symptoms or no paternal family history should be deferred pending longer follow-up and development of the characteristic profile. (Nance MA, and the US Huntington Disease Genetic Testing Group. Genetic testing of children at risk for Huntington's disease. Neurology Oct 1997;49:1048-1053). (Reprints: Dr Martha A Nance, Park Nicollet Clinic, 6490 Excelsior Blvd, Ste E500, St Louis Park, MN 55426).

COMMENT. The authors conclude that confirmation of a clinical diagnosis of Huntington's disease by CAG repeat analysis may be considered in a child under 10, provided the characteristic clinical profile of symptoms and positive family history are present, and the patient and family are aware of the relative medical and psychosocial risks and benefits of diagnostic gene testing. Caution and restraint are advised in cases with incomplete or atypical profiles.

Risk reversals in predictive testing for Huntington's disease are reported in a study of six patients at the Department of Medical Genetics, University of British Columbia, Vancouver, Canada. (Almqvist E, Adam S, Bloch M et al. Am J Hum Genet Oct 1997;61:945-952). Three showed an increased risk on repeat direct testing for the HD mutation, and in three the risk was decreased. The importance of rigorous quality control to lessen likelihood of technological and human error is emphasized.

MENTAL RETARDATION SYNDROMES

PERIVENTRICULAR HETEROTOPIA AND RETARDATION

Three unrelated boys with a new multiple congenital anomaly-mental retardation syndrome are reported from the University of Minnesota Medical School, and the Universita Degli Studi di Pisa, Italy. Congenital abnormalities included 1) bilateral periventricular nodular heterotopia (BPNH) and ventriculomegaly, 2) cortical dysplasia, 3) cerebellar hypoplasia, 4) severe mental retardation, 5) epilepsy, 6) clinodactyly, 7) syndactyly, and 8) probable X-linked inheritance. Involvement of the same Xq28 locus as found in classical, isolated BPNH was suggested. (Dobyns WB, Guerrini R, Czapansky-Beilman DK, et al. Bilateral periventricular nodular heterotopia with mental retardation and syndactyly in boys: a new X-linked mental retardation syndrome.