論 文 要 旨

Genetic spectrum of Charcot-Marie-Tooth disease associated with myelin protein zero gene variants in Japan.

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Abstract

We aimed to reveal the genetic features associated with *MPZ* variants in Japan. From April 2007 to August 2017, 64 patients with 23 reported *MPZ* variants and 21 patients with 17 novel *MPZ* variants were investigated retrospectively. Variation in *MPZ* variants and the pathogenicity of novel variants was examined according to the American College of Medical Genetics standards and guidelines. Age of onset, cranial nerve involvement, serum creatine kinase and cerebrospinal fluid protein were also analyzed. We identified 64 CMT patients with reported *MPZ* variants. The common variants observed in Japan were different from those observed in other countries. We identified 11 novel pathogenic variants from 13 patients. Six novel *MPZ* variants in eight patients were classified as likely benign or uncertain significance. Cranial nerve involvement was confirmed in 20 patients. Of 30 patients in whom serum creatine kinase levels were evaluated, eight had elevated levels. Most of the patients had age of onset >20 years. In another subset of 30 patients, 18 had elevated cerebrospinal fluid protein levels; four of these patients had spinal diseases and two had enlarged nerve root or cauda equina. Our results suggest genetic diversity across patients with *MPZ* variants.