P5. A SURVEY ON PEDIATRIC EPILEPSY IN THE ISCHIA ISLAND: EPIDEMIOLOGIC AND GENETIC FINDINGS

V. Buono¹, A. Coppola¹, V. D’Ambrosio², G. Giussani³, S. Buono⁴, F. Zara⁵, E. Beghi³, and P. Striano⁶

¹Department of Neuroscience, Reproductive and Odontostomatological Sciences, Federico II University, Naples, Italy; ²Family pediatrician, Ischia, Italy; ³Laboratory of Neurological Diseases, IRCCS “Mario Negri”, Milan, Italy; ⁴Department of Neurology, AORN “Santobono-Pausilipon”, Naples, Italy; ⁵Laboratory of Neurogenetics and Neuroscience, IRCCS “G. Gaslini” Institute, Genova, Italy; ⁶Pediatric Neurology and Muscular Diseases Unit, DINOGMI-Department of Neurosciences, Rehabilitation, Ophthalmology, Genetics, Maternal and Child Health, “G. Gaslini” Institute, Genova, Italy

There are only few studies on pediatric epilepsy in geographic isolates, we investigated the frequency and characteristics of pediatric epilepsy in a typical geographic isolate, with a twofold purpose: 1. To calculate incidence and prevalence of the disease; 2. To investigate the genetic component through family history, medical history and gene mapping, to be obtained from probands and relatives. The total population of island of Ischia is 61,086, including 8,381 children and adolescents aged 0-14 years. Only children and adolescents aged 1 through 14 years in the calendar year 2017 were eligible for investigation. Epilepsy was diagnosed according to the International League Against Epilepsy’s classification. A total of 36 children and adolescents were found with confirmed epilepsy. There were 16 girls and 20 boys. Included were 18 patients with epilepsy due to structural/metabolic diseases and 18 patients with idiopathic epilepsy. Perinatal complications were the predominant cause in patients with structural/metabolic diseases. The prevalence was 4.3 per 1,000. Only one patient was diagnosed prior to 2004, leaving 35 incident cases. The incidence in general pediatric population, calculated during the 14- year period, was 33.5 per 100,000/year (29 in female pediatric population e 39,1 in male pediatric population). In contrast with other reports from geographic isolates, our findings do not confirm a higher than expected prevalence of epilepsy. The prevalence of active epilepsy in children in our study was even lower than in the Eolian islands that included in the diagnosis only patients with two or more unprovoked seizures.