Types and distribution of epilepsy among children in Palestine

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Abstract

Introduction:
Epilepsy is the predisposition to two or more unprovoked seizures. This condition has been recognized since ancient history, and overtime, the understanding has profoundly developed in regard to its pathophysiology and potential treatment options. A classification system is also needed to enhance the communication between neurologists, for teaching, and planning management. The classification should be based on two points, the electroclinical characteristics and underlying etiology. Most of the attention, however, was spent on the former and much less on the latter.
On the other hand, epidemiologic studies of epilepsy, as in other disorders, need to be done in every community, as they define the base for further studies and understandings, and modify the health care in regard.

Methodology and Results:
Herein, we have conducted a retrospective study that included 736 pediatric patients, ranging between 0-17 years of age, diagnosed with epilepsy in the period from 1991 to 2000. 62.5% of the patients were males, and 37.5% were females. Most of the patients (58.0%) were less than 1 year, 20.9% between 1-5 years old, 16.3% between 6-12 years, and 4.8% between 13-17 years. Around 70% of the patients were from southern West Bank.
We found it more suitable for our study and for future similar studies to adopt a simple etiologic classification system that can be effectively and easily applied. Thus, we have adopted a proposed classification of epilepsy based on etiology and according to the presence of underlying precondition into two broad categories: epilepsy with underlying preconditions, representing 30.3% of the patients; and epilepsy with no underlying preconditions, representing 69.7% of the patients. This latter was further subdivided into familial (7.9%) and non familial (61.8%) according to the presence of family history of epilepsy.
Looking into the etiology of infantile spasms (West syndrome), we found that most patients had unknown (non familial) etiology, constituting 79.4% of the cases, underlying precondition was found in 13.2% of the patients, and the remaining 7.4% had familial etiology.
One of the most common associated disorders was the psychomotor delay (PMD), which was found in 22.1% of the patients. Attention deficit hyperactivity disorder (ADHD) was found in 1.5% of the patients, and 0.1% of the patients had an associated autism.