

Abstract

Introduction and objective: Information on the spectrum and frequencies of pediatric neurological presentations to emergency departments is vital to optimize quality of care. The objective of this study was to determine the incidence of pediatric neurological emergencies and to analyze the impact of specialist neurological advice in emergency care.

Patients and methods: We performed a retrospective descriptive study of pediatric emergency room visits for neurological reasons at the Timone University Hospital in Marseille over a 6-month period (from October 2017 to March 2018).

Results: Of the 14,572 emergencies analyzed, 370 (2.5%) were for neurological conditions. These were most commonly seizures (56.7% of cases), headache (19.7%), and motor or sensory deficits (5.1%). The most frequent diagnosis was epileptic seizure (30%), followed by febrile seizure (26.1%) and migraine (15%). Around two in every five patients (37.6%) required hospitalization. Neurological emergencies requiring critical care occurred at a frequency of about one per month (1.6% of cases). A pediatric neurologist was consulted in 37.3% of cases, resulting in a modification of the diagnosis or treatment in 66% of these referrals.

Conclusion: The results of this study suggest that a formal referral system between the emergency department and pediatric neurologists would be useful.

Keywords: Emergencies; Neurological; Neuropediatrician; Pediatric.