Introduction

Functional Motor Disorders (FMDs) in pediatric age represent an increasing challenge among acute movement manifestations, mostly for functional tic during the pandemic. The aim of our study was to distinguish possible specific clinical motor patterns as well as neuropsychological vulnerabilities in children and adolescents, by a multidisciplinary approach.

Results

53% of cases were referred during the pandemic and in the 75% of them functional hyperkinetic manifestations were reported. Functional gait disorder was reported in 68%, mostly presenting an isolated pattern. During the pandemic years, a relative increase in functional tic-like was highlighted. Neurocognitive profiles were characterized by discrepancies between verbal and perceptual abilities, while anxious and depressive symptoms arose by the psychopathological evaluations. The two-year positive outcome was mainly related to an early diagnosis in the 90%.

Materials and methods

38 FMD pediatric patients (9-18 years) were enrolled (timeframe 2016-2022) in our Pediatric Movement Disorders clinic of a tertiary center. Motor patterns as well as neuropsychiatric and psychiatric profiles were retrospectively analyzed. A prospective study was possible in a subset of patients enrolled during the pandemic, reporting the short-term outcome at one year.

Conclusions

This data expanded the knowledge of FMD motor patterns in the pediatric age, represented mainly by an isolated pattern of functional gait disorder. An overall FMD increase was reported during the pandemic and relatively to Tic-like symptoms. Specific neuropsychiatric and psychopathological profiles underline the neuropsychiatric nature of FMD disorders in which a multidisciplinary treatment is suitable, with positive outcomes strictly linked with early diagnosis.

Psychopathological Profiles revealed that in our population higher clinical levels of Anxiety and Mood Disorders (83% and 53%) than both Somatoform/Dissociative symptoms (13% and 8%). These same symptoms were widely explored in the literature. The same symptoms of Anxiety and Mood Disorders in the adult population were frequently described but with a lower prevalence percentage (10% and 40%). Heterogeneous profiles were reached in our population, with a differential score from 10 to 20 points, between the two domains of the PRI and the VCI (43% VCI>PRI; 39% PRI>VCI). This dissociative functioning in the neurocognitive profiles suggests minor neuropsychological vulnerabilities, probably underlying both a possible impairment in visual-perceptual skills and executive functions of these patients and the verbal ability related to atypical tic traits.