

Movement disorders in emergency: a single-center study in a third level hospital

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Background: Limited data are available in the literature on movement disorders in the emergency department (ED) and in inpatients outside the neurology ward.

Objective: To describe the frequency and type of movement disorders (MD) in an ED and among inpatients outside the neurology ward in a third-level hospital.

Materials and Methods: Patients seen at the Padua University Hospital in the first six months of 2022 who presented with a MD requiring urgent neurological evaluation were included. Movement disorders were differentiated into hyperkinetic (tremor, chorea, myoclonus, dystonia, ataxia, restless legs syndrome) and hypokinetic (parkinsonism, gait disturbances). Type of onset was distinguished into acute (within 28 days) or chronic (> 28 days). Chi-Square test and Fisher Exact test were used for statistical analysis; was considered significant.

Results and Conclusion: Patients were divided in two groups: 1) subjects evaluated in the ED; 2) inpatients admitted in departments outside the Neurology ward. Among 2433 patients who accessed the ED requiring a neurological consultation, 34 (1.39%) had a movement disorder. Among 1039 neurological consultations required in the second group, 68 (6.3%) were for movement disorders. In the ED, hypokinetic MD (24/34, 70.6%) were more frequent than hyperkinetic MD (10/34, 29.4%) and were associated with a chronic and an acute onset ($p < 0.05$), respectively. Among inpatients, hyperkinetic MD were more frequent in under 65 (11/27, 40.7%) compared to over-65 patients (1/29, 3.4%) and were associated with acute onset ($p < 0.05$). Patients in intensive care units (ICU) tend to present hyperkinetic disorders with an acute onset (7/38, 18.4%) compared to patients from other units (1/30, 3.3%) ($p = 0.055$).

Parkinsonism was the most frequently observed MD in both groups; Parkinson's disease in poor therapeutic control was MD seen more frequently. Other common causes of MD were drug-induced disorders (5 patients) and metabolic abnormalities (6 patients).