Significant deviations from normal gait were the results of biomechanical constraints and abnormal joint positions associated with the pathological pattern. This study may validate the proposition that the abnormal muscle responses are the consequences of biomechanical restrictions at joints rather than central nervous system impairments. This finding may help clinicians to better appreciate the effectiveness of surgical intervention in the management of CP.

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P026–EN

Quine and spasms: How effective?
A.A. El Ounni∗, O. Elhilali, N. Hajjaj-Hassouni
Unité de MFR, hôpital El-Ayachi CHU Ibn-Sina, route de la plage, 11000 Salé, Morocco
*Corresponding author.

Keywords: Spasms; Quinine

Introduction.—Spasms are common in neurological patients (multiple sclerosis, spinal cord injury...); our case study aims to report the effectiveness of quinine taken at very low doses based on a chance observation of improvement after ingestion of soda with traces of quinine.

Patients and methods.—After excluding contraindications for taking quinine, we invited 8 patients with neurological spasms and significant spasticity to drink a daily 330 mL soft drink with quinine at low doses. Response was evaluated after 10 days with the Penn spasm scale.

Results.—All eight patients had a score of 3 on the scale of Penn at the beginning, with 5 multiple sclerosis, and 3 spinal cord injuries. This gave an improvement in 6 cases (75%) of the order of at least one score, and score improvement from 3 to 1 on the scale of Penn in two cases (25%).

Discussion and conclusion.—The treatment of spasm by low-dose quinine has been controversial in the literature, however, in our series we found a satisfactory improvement. A prospective, randomized, double-blind trial would be warranted.


P027–EN

Delayed recovery of prehension after stroke: A clinical and kinematic analysis
P. Riffo∗, M. Fourtassi, P. Revol, G. Rode
Hôpital Henry-Gabrielle, 20, route de Vourles, 69230 Saint-Genis-Laval, France
*Corresponding author.

Keywords: Stroke; Motor recovery; Kinematics; Prehension

Introduction.—Motor function recovery of the upper limb after stroke remains very limited with the persistence of an impaired grip in about 80% of the cases. This recovery is not linear, and occurs in two phases: an initial phase of rapid recovery during the first 3 months followed by a slower phase, which tends to a plateau. We describe a patient who had delayed distal motor recovery in the upper limb 9 years after stroke.

Case report.—A 53-year-old man had an ischemic stroke in 2001 with right hemiplegia. After 5 months, he presented a discreet proximal motor recovery of the upper limb and 4 years later, he had a beginning of a non functional thumb-index pinch. In 2010, all types of grip were possible with a Fugl Meyer score of 56/66. The strength of the right palm was assessed at 70% in comparison to the healthy side, and the Box and Block test dexterity at 50%. Kinematic analysis conducted in 2010 showed, comparatively with the previous one performed in 2006, a decrease of movement time (P<0.01) with increasing time of peak velocity (P<0.01) and a hand opening earlier and more compared with healthy controls (P<0.01). There was also a significant difference in movement time (P<0.05) for the power and the precision grip.

Discussion.—This is a case of delayed motor recovery of the upper limb after stroke with recovery of a precision grip after 9 years evolution. The kinematic analysis showed a movement initially variable but whose variability decreasing with time. The profile of hand opening had evolved from sliding the fingers over the object, towards a more suitable grip comparable with control subjects. Even in the absence of early recovery, functional distal motor recovery of the upper limb can occur at distance of stroke. Kinematics analysis is an interesting tool to assess the improvement of distal motor recovery in the upper limb after stroke.


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A.A. El Ounni∗, O. Elhilali, N. Hajjaj-Hassouni
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