

CO0204

## Main determinants of weight-bearing asymmetry in hemiplegic stroke patients



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**Objective** Weight-bearing asymmetry (WBA) at the expense of the paretic side concerns 60% of stroke patients. WBA is associated with poor functional prognosis especially in terms of gait performance [1,2]. The primary objective was to assess the determinants of WBA in stroke patients from clinical and instrumental data.

**Material/Patients and methods** The sensitivity (EmNSA), motricity (Fugl-Meyer motor), spatial neglect and visual perception of verticality (VPV) were evaluated in 20 stroke patients (age:  $53.3 \pm 15.3$  years; paresis D/G: 9/11) at least 3 months post-stroke and 20 control subjects. WBA and postural instability, as assessed by velocity of the center of pressure (VelCP), were measured eyes open with a force platform (Feetest, Technoconcept), synchronized with a three-dimensional kinematic analysis (OptiTrack motion capture system) of the pelvis and trunk.

**Results** Nine patients showed no WBA like in controls, 9 had a WBA to the expense of the paretic side (15.3% of body weight) and 2 to the expense of the non-paretic side (14.1% of body weight). The VPV was unaltered in both groups. In patients, the pelvis translation was increased on the overloaded side ( $1 \pm 1.6^\circ$  vs.  $-0.1 \pm 0.6^\circ$ ,  $P < 0.05$ ) and was highly positively correlated with the WBA ( $r = 0.85$ ) and negatively with the Fugl-Meyer score ( $r = -0.71$ ). Stepwise multiple linear regression revealed four predictors of WBA (adjusted  $r^2 = 0.85$ ): Fugl-Meyer, pelvis translation, VelCP and VPV.

**Discussion - Conclusion** From a biomechanical perspective, the main determinant of WBA seems to be the pelvis translation toward the overloaded side, itself being strongly associated with motor impairment and postural instability, with the possible participation of a VPV disorder.

**Keywords** Weight-bearing asymmetry; Stroke; Posture; Kinematic

**Disclosure of interest** The authors declare that they have no competing interest.

### References

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CO0205

## Typology evolution of patients hospitalized after recent stroke in PRM department over 15 years: A retrospective observational study



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**Objective** Since 10 years, health care for stroke patients had increased considerably: increasing number of the stroke units, development of authorized neurological specialized PRM departments, and new therapies used (thrombolysis, thrombectomy). These evolutions could impact the typology of patients hospitalized in PRM units after recent stroke. This study aims to look at such a possible evolution in our department, and try to identify the potential factors of change.

**Material/Patients and methods** Retrospective study conducted on 7 years chosen over the last 15 years among hospitalized patients after recent stroke: demographic data, stroke's characteristics, treatments, length of stay and clinical characteristics. Statistic analysis on the evolution of these data was based on Chi<sup>2</sup> and Anova analysis.

**Results** Six hundred and forty-two medical records were reviewed (225 women and 417 men, 432 ischemic stroke and 210 hemorrhagic, mean age 58 years [17–93, SD 13.2]). There was no difference regarding the characteristics of stroke (ischemic/hemorrhagic, unique/multiple, first/recurrence), entrance delay and length of stay. As expected the frequency of thrombolysis and thrombectomy increased ( $P < 0.005$ ). The number of category 3 SOFMER patients and cognitive disorders increased ( $P < 0.005$ ), contrasting with the increase of walking patients at entrance and discharge, as well as the functionality of the paretic upper limb ( $P < 0.005$ ) which probably explain the increase of entrance ( $P = 0.003$ ) and discharges FIM scores ( $P = 0.009$ ). A significant decreasing of usual complications as disabling spasticity and shoulder pain was observed ( $P < 0.05$ ).

**Discussion - Conclusion** The findings showed significant changes in the typology of patients admitted after recent stroke in PRM department since 7 years, reflecting impact of health care for stroke patients.

**Keywords** Typology; Stroke; Evolution; Stroke units; Thrombolysis; Thrombectomy

**Disclosure of interest** The author has not supplied his/her declaration of competing interest.

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CO0206

## Sexual disorders in stroke patients compared with control subjects in Benin: A prospective study



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**Objective** The genito-sexual disorders can be caused by stroke. These disorders often are silent even if they are at the heart of patient concerns.

The objective was to study the sexual dysfunction in patients with stroke compared to control subjects.

**Material/Patients and methods** We did a prospective descriptive analytical cross-sectional study in the department of functional rehabilitation of National university hospital center of Cotonou CNHU HKM. This study involved 134 subjects including 67 stroke patients dating back at least 6 months and 67 controls matched to cases by age and sex.

**Results** The male was marked with a sex ratio of 2.04. The mean age was  $54.97 \pm 2.32$  years, ranging from 23–72 years. The stroke was shown to be a potent risk factor of impaired sexual activity. It multiplies by 15 the risk of sexual dysfunction (OR = 15;  $P < 0.001$ ) and 5 the risk of sexual inactivity (OR = 4.63,  $P = 0.002$ ).