Keywords: Superior mesenteric artery syndrome; Denutrition; Brain injury

Introduction.—Superior mesenteric artery syndrome is a rare diagnosis often underestimated, which is the result of an extrinsic compression of the third portion of the duodenum in fatty cellular space between the aorta and the superior mesenteric artery.

We report a case of superior mesenteric artery syndrome observed in a young patient with a traumatic brain injury following a severe malnutrition. Our patient, the evolution was positive with healing of the median laparotomy and a progressive weight regain following a high protein hyperalimentation by jejunostomy tube and a recovery of oral feeding without specific gastrointestinal complications.

Discussion.—Postprandial epigastric pain, reflux, nausea, vomiting, anorexia and weight loss must evoke superior mesenteric artery syndrome. These pains are often relieved by curled up position or lateral decubitus position. Superior mesenteric artery syndrome is rare, but should be known and discussed in the context of severe malnutrition, it is related to the reduction of the fatty cellular space between the aorta and the superior mesenteric artery. In the acute phase, a nase-gastric aspiration and a left lateral decubitus positioning allow symptomatic improvement. It will be followed by a conservative treatment with renutrition by jejunostomy or parenteral nutrition, the goal is a weight regain for the restoration of adipose cellular mesenteric artery tissue. In case of failure of conservative treatment, surgical options are possible.

Conclusion.—Superior mesenteric artery syndrome should be considered in any patient with postprandial abdominal pain, nausea, vomiting, anorexia or weight loss. Thus the importance of nutritional support to prevent this risk must be underlined.

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Impact of traumatic brain injury on the evolution of quality of life during the five years following a road accident

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Keywords: Traumatic brain injury; Quality of life; WHOQOL-BREF; ESPPAR

Background.—There is a lack of research on the long-term outcome after traumatic brain injury (TBI) in France. Our study evaluated the impact of TBI on the quality of life (QoL) during the first five years following a road accident.

Methods.—A prospective study was carried out among 957 injured road accident victims, aged ≥ 16 years, and living in the Rhône Department, France. QoL was repeatedly measured at 1, 3, and 5 years after the road accident using the brief version of the World Health Organization Quality of Life (WHOQOL-BREF). The raw score of the overall quality of life, general health facet, physical health, psychological, social relationships and environment domains vary from 4 to 20; higher scores reflect better quality of life. All the analyses were performed using the hierarchical mixed models.

Results.—Overall, 22.7% of the injured road accident victims were categorized as TBI at inclusion. TBI was associated with the overall QoL and social relationships scores during the first five years following the road accident. We also found that some previous medical history were associated with the four domains of the WHOQOL-BREF, except the social relationships domain. During the follow-up, an occurrence of another accident or a disease such as a cardiovascular disease decreased the overall QoL. Our results also shown that subjects who practiced sports regularly before their road accident, subjects who were employed after their road accident, or subjects who received an accident’s compensation had higher general QoL score.

Conclusion.—Our results indicate a poorer QoL in subjects with TBI. This study also points out the necessity to take into account previous medical history of the patient in prognostic models after TBI.

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Long-term functional outcome of a cohort of severe traumatic brain injury patients after neurosurgical reanimation

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Keywords: Severe traumatic brain injury; Global outcome; Behavioral and cognitive sequelae; Glasgow Outcome Scale Extended; Dysexecutive questionnaire

Objective.—The aim of this study is to describe global and functional outcome of patients with severe traumatic brain injuries (TBI) long time after neurosurgical reanimation. This work is included in a larger project of correlations between cerebral imagery, cognitive impairments and handicap after sevr TBI.

Patients and methods.—Patients from a neurosurgical reanimation’s cohort of the Pitié-SalpêtrièreParisian Hospital were included, with initial severity data recording. A French version of Glasgow Outcome Scale Extended (GOSE) assessed the global functional outcome. The Dysexecutive Questionnaire (DEX) and a complaint questionnaire measured behavioral and cognitive impairment.

Results.—These preliminary results rely on nine patients evaluated 87 month in mean after TBI. The average Glasgow Coma Score was 12 [4–15]. The average duration of sedation was 5.8 days [0–17]. Six patients had a good recovery (GOSE 1 or 2), two a moderate disability (GOSE 3 or 4) and 1 had severe disability (GOSE 5). Patients’ principal complaints were memory trouble, difficulty for double task, irritability, fatigability and anxiety. All patients were living at home. The average score on the DEX were 17.5 [2–33]. Six patients had rehabilitation after neurosurgical reanimation. None of them had specialized medical care in Physical Medicine and Rehabilitation.

Discussion.—Long time after TBI, the global outcome for these patients appears heterogeneous. The persistent behavioral and cognitive impairments showed important consequences in daily life for the majority of them. The initial severity score did not predict the severity of these sequelae. This study will allow correlating behavioral and cognitive impairment with anatomical lesions observed in diffusion tensor imaging and resting state, sequences of magnetic resonance imaging.

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Repercussion on professional activity of post-concussion syndrome subsequent to a mild traumatic brain injury–prospective study over six months

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Keywords: Mild traumatic brain injury; Post-concussion syndrome; Return to work

Goal:—Looking for the existence of repercussions on professional activity of a post-concussion syndrome subsequent to a mild traumatic brain injury.

Population and method.—
– Prospective descriptive study over six months;
– Inclusion specifications: victims of a mild traumatic brain injury (mTBI) according to the definition of WHO; admitted to Emergency; aged 18-62; exercising a professional activity;
– Search for a post-concussion syndrome (PCS) on the phone and evaluation of its evolution after one and three months: Rivermead Post Concussion Symptoms Questionnaire, translated for the study;
– Consultation in case of unfavorable evolution between the two questionnaires: Neurobehavioral Rating Scale-revised (NRS-r), followed by a possible multidisciplinary rehabilitative care in a Functional Reeducation Center;
– Search for professional difficulties linked to the mTBI after six months: unstandardized semi-open phone questionnaire.

Results. – Analysis on 70 patients:
– 48% (n = 34) of patients presented a PCS one month after their mTBI, persisting after three months for 38% (n = 27) of them;
– 21% (n = 15) of patients underwent the NRS-r and 10% (n = 7) went in reeducation, which saw an unfavorable evolution;
– 60% (n = 42) of patients went on sick leave from 1 to 115 days, (24,25 days on average);
– professional repercussions of the mTBI after six months: they are present for 39% of cases (n = 26);
– 32% (n = 21) of patients spoke of a persistent tiredness, 18% (n = 12) indicated memory troubles and 17% (n = 11) slowness of movement;
– only seven people (10%) couldn’t compensate these difficulties in a satisfactory way, the others having well adapted to the changes;
– all patients resumed their former job after six months, except four, two of them directly because of the PCS; two patients transiently changed their post; two patients transiently reduced their working time.

Conclusion. – The PCS is frequent after a TBI but the majority of our study’s victims keep on working in the conditions similar to those before the pre-trauma situation. The PCS then doesn’t seem to be a major obstacle to the continuation of a professional activity.

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P020-e

Development and standardization of an ecological complex organizational and problem solving test in vocational rehabilitation: Multiple Errands Test in Vocational Rehabilitation, MET-PRO

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Keywords: Neuropsychology; Executive dysfuction; TBI; Ecological evaluation; Vocational rehabilitation

Objective. – An executive dysfunction is one of the most frequent and disabling long-term sequelae after severe traumatic brain injury (TBI). The executive impairments, often minimized by classic structured neuropsychological testing, are likely to hinder an adequate professional reintegration. The objective is to develop a standardized and ecological test (MET-PRO) in the context of vocational rehabilitation, sensitive to executive difficulties of patients who sustained severe TBI.

Materials/patients and methods. – MET-PRO, initiated by the Department of Neurological Rehabilitation, results from a collaboration between the Vocational Training Service and the Neuropsychology Unit. It is based on the model of Multiple Errands Test originally created by Shallice and Burgess (1991), translated into French and validated in our clinic. A first adaptation applied to vocational rehabilitation has been drafted and then revised with the introduction of new tasks, aspects of prospective memory and new distractors in a standardized format. The subject must perform four ecological activities of varying complexity, search for information and record them, while respecting given rules. The realization of this test highlights especially planning abilities, prospective memory, selective and sustained attention, organization and problem solving as well as the adaptation of behavior over an extended period. Patients hospitalized in the context of rehabilitation of the musculoskeletal system (ie without neurological or psychiatric history) participate as controls.

Results. – Preliminary results show a good sensitivity of MET-PRO with no ceiling effect (ie no patient made no mistake). The MET-PRO is achievable between 3 and 6 hours. It allows a differentiated quantifiable assessment, the classification of different types of errors (errors of interpretation, judgment failures, rule breaks, task failures and inefficiencies) and a qualitative analysis of the behavior.

Discussion. – The Multiple Errands Test in vocational rehabilitation (TEM-PRO) is an original, ecologically valid and sensitive test. This first stage of standardization allows a differentiated assessment of cognitive functioning, and especially of executive aspects, which can be applied to a vocational evaluation setting.

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