Introduction.—Non-pharmacological approach is a major component of the treatment of behavioral disorders of brain injury but the scientific data remain low.

Method.—Review of the literature since 1980 supplied by the HAS and books of reference. Classification according to psychotherapeutic currents and not psychotherapeutic approaches; allocation of a level of proof and writing guidelines of French experts according to the methodology of the HAS.

Results.—Four hundred and forty-one articles were listed, 81 selected and classified according to 5 types of care: behavioral cognitive (26), holistic (19), systemic (14), psychoanalytic (10), physical mediation (6). Finally, 12 studies of level 2, 46 are of level 4 and 9 were review of literature. Thirty-four guidelines were redacted indicating the importance of a non-pharmacological approach in first intention through 4 approaches systematically: psychotherapeutic, environmental (families, teams), rehabilitation (motricity, cognitive...), activities (professional, non-professional).

Discussion/conclusion.—These precise, directly guidelines applicable by every professional or any body in charge of traumatized cranial have to diffused and implemented waiting for an evaluation according to field experiences and advances of the literature.

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TR01-004-e

French guideline for the management of behavioral disorders in traumatic brain injury: Medications

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Method on http://www.has-sante.fr: the documentary service of the High Health Authority (HAS, France) targeted articles on pharmacological agents (from 1990 to 2012).

Results.—One hundred and thirteen of 772 analysed references. There is insufficient evidence to standardize the management of behavioural disorders after traumatic brain injury (TBI). Evidence, however, allow possible to establish best practice recommendations (RBP). Beta-blockers (propranolol) can decrease aggressiveness. Carbamazepine, valproate, appear to be effective on agitation and aggression. First-line recommendation. Lack of evidence of efficacy of neuroleptics. Their prescription is conceived in a crisis or an emergency (loxapine). The long-term use should be avoided. Antidepressants are recommended for treating depression. The use of other products is described.

Discussion.—The choice of treatment depends on the level of evidence, individualized goals and is a matter of experience and prudence.

Further reading


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TR01-005-e

French guidelines for neurobehavioral disorders in traumatic brain injury: Treatment strategies and follow-up

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Keywords: Traumatic brain injury; Neurobehavioral disorders; Recommendation for good practice; Guidelines; Follow-up; Therapeutic strategies

Following the guidelines elaborated by SOFMER for traumatic brain injured patients with behavioral disorders, specific recommendations have been proposed in order to define strategic therapeutic options and follow-up.

Methods.—Systematic and critical review of the literature and expert opinion.

Results.—Management strategies concerned agitation in the awakening phase, crisis in medico-social facilities or at home, behaviors with medico-legal consequences.

Conclusion.—Prevention of behavioral disorders should involve the treatment of pain, the therapeutic alliance as well as a personalized follow-up. Information of the patient, his/her family and his/her caregivers regarding the local organization and facilities involved in the management of traumatic brain injury is of great importance.

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Posters

P001-e

Prevalence of history of traumatic brain injury in prison population: A review

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Keywords: Traumatic brain injury; Prison; Prisoner

Introduction.—In Europe, there is a lack of data on the prevalence of traumatic brain injury (TBI). Some consequences of TBI are cognitive and social impairments and the relation between criminality and history of TBI is discussed quite often.

Objective.—The objective of this review is to present an updated of possible relations between criminality and history of TBI.
Methodology.— PubMed was used to search articles. Selected articles were about different topics: prevalence, relation between neurological lesion and criminality,…

Results.— This analysis highlights a number of major issues:
– all published articles are about inmates’ populations from North America, Australia and Northern Europe;
– many studies, including two recent meta-analysis, have found prevalences of history of TBI to be between 40 and 60% of studied populations.

Conclusion.— Based on these results, authors conducted a study to establish, for the first time in France, the prevalence of history of TBI among a population of inmates in a French prison.

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P002-e

History of traumatic brain injury among prisoners: Differences depending on the severity of the reported trauma
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Keywords: Traumatic brain injury; Prison; Prisoner

Introduction.— Two meta-analyses have highlighted a significant prevalence of history of TBI in incarcerated populations [1,2]. A prevalence survey has been conducted at Fleury-Mérogis prison.

Objective.— Establish the prevalence of history of TBI and epilepsy in a population of incomers in prison and to explore the links between TBI, epilepsy and criminality.

Methodology.— A questionnaire was filled with all incomers at Fleury-Mérogis prison during a period of 3 months.

Results.— The prevalence of history of TBI is 32% among adult males. Depending on the TBI severity, different profiles could be described concerning criminal course, perceived health, treatments and psychoactive substances used.

Conclusion.— These results should lead to better screening in this population and adapted support according to the severity of the TBI.

References

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P004-e

Visual rehabilitation with a vision-trainer instrument for patients with severe acquired brain injury (sABI): Two case reports
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Keywords: Acquired brain injury; Rehabilitation; Visual trainer

Introduction.— The severe impairment of the visual acuity and visual field is one of the perceptual disturbances that most interfere with rehabilitation programs for ABI. Retimax Vision-Trainer is a biofeedback device that has the purpose to improve visual function by means of the detection of a visual evoked potential associated with a sound feedback.

Observation.— We evaluated the effectiveness of rehabilitative treatment in two patients with ABI:
– M.U., male, 53 aged, with a right hemisphere cerebral haemorrhage 24 months before, LCF = 8, no neglect, left hemonomous hemianopia;
– G.U., female, 24 aged with a cerebellar haemorrhage (9 years before, with a period of unresponsiveness of 7 years), LCF = 6, bilateral visual acuity 2/10 for distance, 6 DW for near, nystagmus, right exotropia, left homonymous hemianopia.

Patients were submitted to the treatment of photostimulation, 10 sessions twice a week. In M.U. we noticed a significant visual field enlargement to the left, documented by Goldmann perimetry. In G.U. it was observed an increase of 1/10 in visual acuity for distance and near, with functional advantages in BADL.

Discussion.— We believe that Retimax Vision-Trainer may be an effective rehabilitative tool, provided there is a satisfactory attentional and cognitive competence.

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P005-e

Voxel-based statistical analysis of brain metabolism in traumatic brain injury patients with growth hormone deficiency after growth hormone replacement treatment
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Keywords: Traumatic brain injury; Growth hormone; PET; Cognitive function