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► To cite this version:

Charlène Tournier, Pierrette Charnay, Jacques Luaute, Martine Hours. The ESPARR cohort: the future of the serious injured aged 16 years and over (MAIS3=) with a traumatic brain injury (TBI) three years after the crash.. 19th European Congress of Physical and Rehabilitation Medicine, May 2014, MARSEILLE, France. 19th European Congress of Physical and Rehabilitation Medicine, 1 p, 2014. hal-01824956

HAL Id: hal-01824956

<https://hal.science/hal-01824956v1>

Submitted on 14 Sep 2020

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The ESPARR cohort: the future of serious injured aged 16 years and over (M.AIS3) with a traumatic brain injury (TBI) three years after the crash

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Introduction

Few longitudinal studies investigated the long-term future of road accident victims. The ESPARR cohort has been followed for 5 years after the crash occurred.

Objective

To study the future of serious injured with TBI 3 years after their road accident.

Result

Characteristics of respondents at 3 years

ESPARR (≥16 years)	NoTBI (AIS _{head} ≤1)	TBI2 (AIS _{head} =2)	TBI3+ (AIS _{head} ≥3)
Age (mean±SD) (years)	38.7±16.9	32.9±14.6	35.6±16.0
Men (%)	71.0	78.4	81.6

Only age at the accident is significant between TBI2 and NoTBI ($p < 0.05$).

Self-assessment of health status

- The same proportion of victims declares a non-recovered health status: NoTBI=68%, TBI2=69%, TBI3+=65%.
- TBI were less likely to report pain related to the accident (NoTBI=79%, TBI2=76%, TBI3+=63%): TBI3+ being significantly less likely than NoTBI ($p < 0.05$).

Quality of life (WhoQol-Bref questionnaire)

- Poor quality of life: TBI3+=12% (TBI2=4%, NoTBI=8%);
- Dissatisfaction of health: TBI3+=22% (TBI2=18%, NoTBI=20%);
- No significant difference between TBI2 (respectively TBI3+) and NoTBI for the 4 domains. Scores are greater for NoTBI than TBI (TBI2 or TBI3+), except for the score of environmental domain in TBI3+.

Methods

ESPARR (≥16 years)	M.AIS≥3	NoTBI (AIS _{head} ≤1)	TBI2 (AIS _{head} =2)	TBI3+ (AIS _{head} ≥3)
Inclusion	324	182	72	70
3 years	231	131	51	49
Response rate	71%	72%	71%	70%

Sequelae (compared to NoTBI, significant test)

- TBI2: psychocognitive sequelae
- TBI3+: neurological sequelae, psychocognitive sequelae, headache, sensory disorders

Family and friendly relations

- TBI3+ report more frequently than other a disturbance of relations.

Occupation

- Lost her/his job, exercised inclusion, due to the accident: TBI3+=24% (TBI2=18%, NoTBI=14%);
- Still off work due to the accident: TBI3+=14% (TBI2=4%, NoTBI=8%).

Conclusion

TBI3+ still suffer serious consequences 3 years after the accident, resulting in a lower quality of life.



Hôpitaux de Lyon

