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Psychological aspects of depression and aggression in patients with consequences of spinal cord injury

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DESIGN

Cross-section mono central cohort (n=51)

Period of patients enrollment- 2016 – 2018

♂ - 43 (84.3 %) ♀ - 8 (15.7%)

Age: 18 - 58 y.o. (35,7±8,7)

Disease duration 7 - 240 months (66,9±3,8 months)

INCLUSION CRITERIA:

- Patients with spine injuries and clinical symptoms of spinal cord injury (SCI)
- Age >18 y.o.
- Over 4 months after trauma

EXCLUSION CRITERIA:

- Patients with spine injuries without clinical signs of SCI
- Age < 18 y.o.
- Less than 4 months after trauma

METHODS:

Clinical check-up, psycological testing, Statistic analysis (Microsoft Office Excel, 2016)

EVALUATION PARAMETERS

Type of injury ASIA, Beck Depression Inventory (BDI), Spielberger-Khanin Anxiety Scale, Buss - Durkee Hostility Inventory (BDHI), M±m, r-Pearson, t-Student

ETHICAL REVIEW

The study was performed in compliance with the principles of the Helsinki Declaration of 1957 (and as revised in 1983)

RESULTS

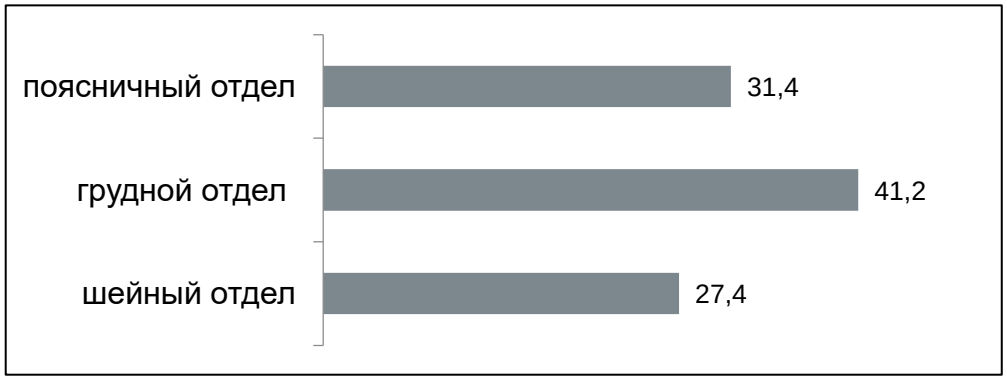


Diagram on distribution according to level of SCI

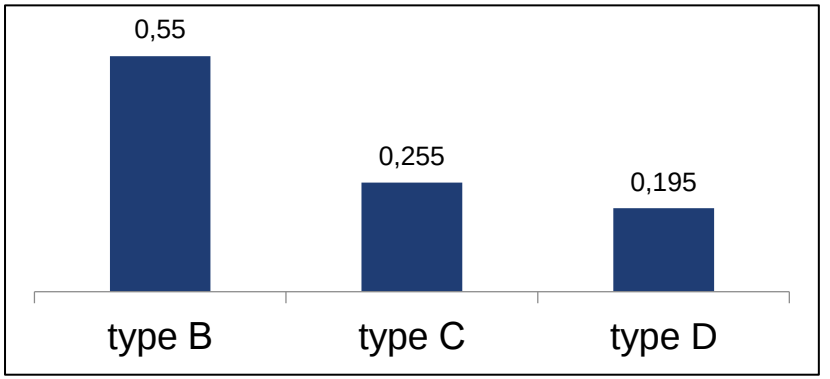
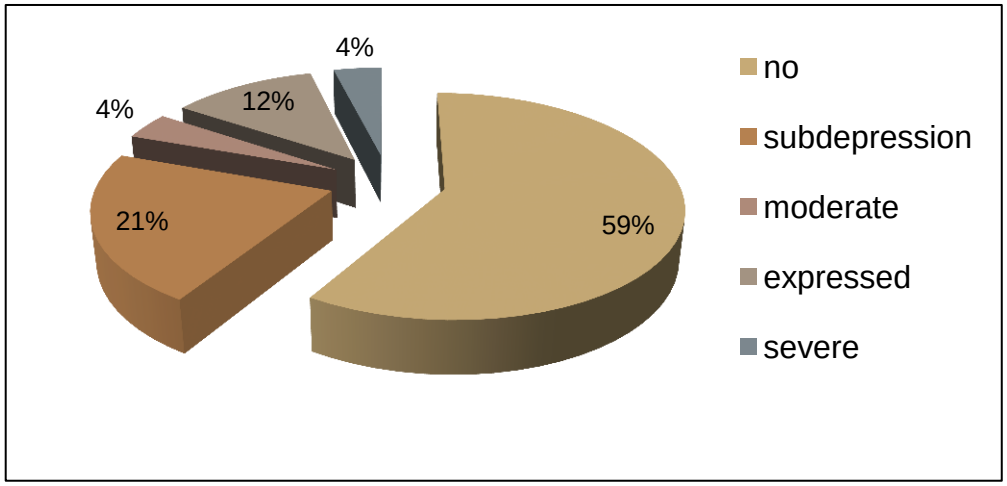
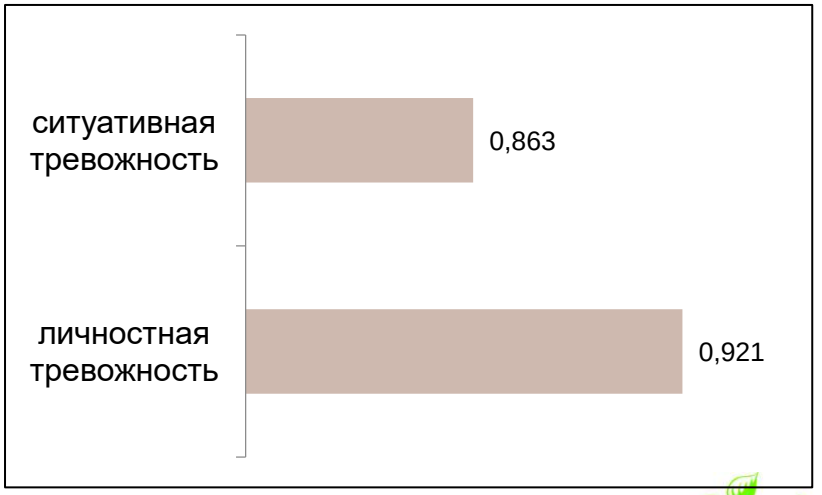


Diagram on distribution according to ASIA scale



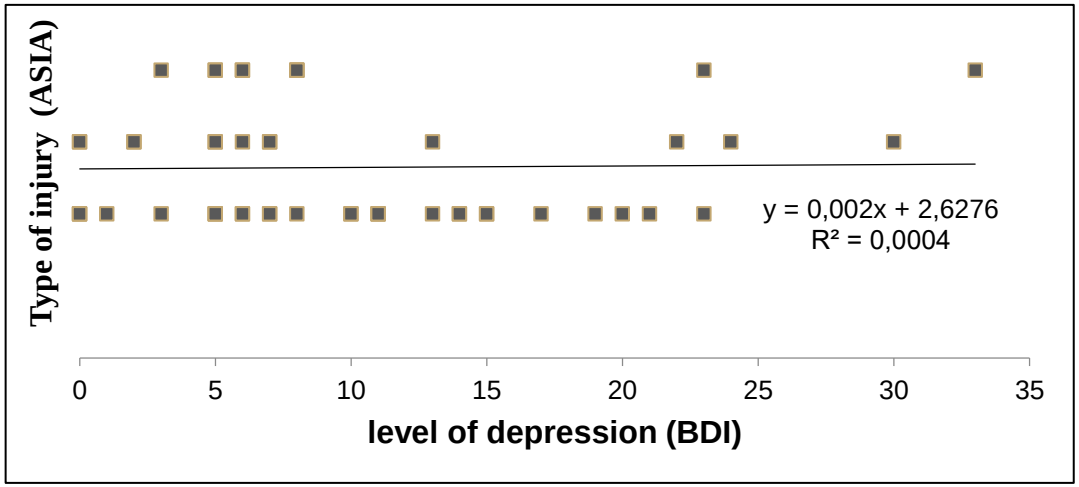
Distribution on depression intensity according to BDI



Anxiety diagram according to Spielberger-Khanin Anxiety Scale

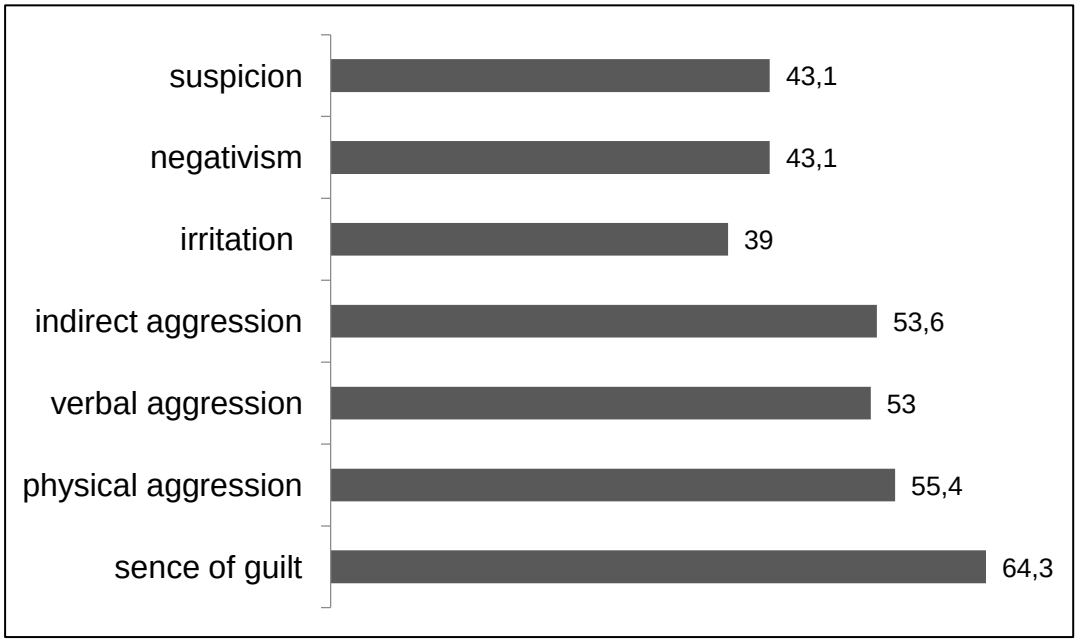
- Clinical depression symptoms were diagnosed in **10 patients (19,6%)**
- Mean number of BDI **10,0±6,1**

RESULTS



Correlation of depression level and type of neurologic disorder

Correlation dependence between level of depression and type of SCI was not revealed



Distribution of average meanings according to BDHI

Agression index **53,5±15,2** (average statutory value)

Hostility index **44,5±14,1** (average statutory value)

RESULTS

BDI results:

- 30 patients –no symptoms of depression (BDI<10)
- 21 patients — depression from mild to expressed degree (BDI≥10)

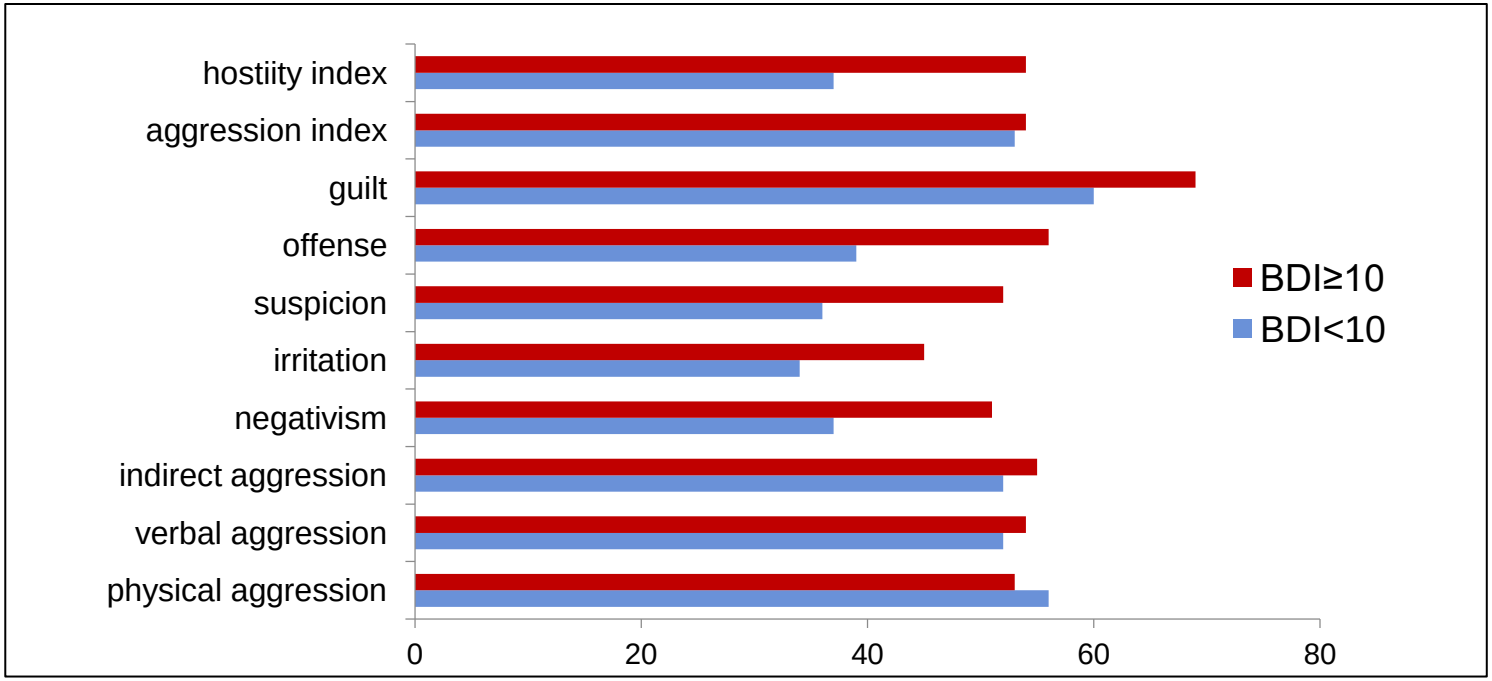


Diagram of aggressiveness scale according to BDHI (BDI) (p<0,05)

In patients with BDI≥10 revealed correlation:

level of depression — type of neurological disorder (ASIA): **r=0,7**

level of depression — pelvic organs disorder: **r=0,6**

DISCUSSION

Literature data regarding depression frequency in patients, in long term follow up after SCI are contradictory

1 y. after SCI

NeuroRehabilitation 29 (2011) 9–21
DOI 10.3233/NRE-2011-0672
IOS Press

Factors predicting depression among persons with spinal cord injury 1 to 5 years post i

11%

Juan Carlos Arango-Lasprilla[a,*], Jessica M. Ketchum[b], Angela Starkweather[c], Elizabeth Ni
Amber R. Wilk[b]

18%

Archives of Physical Medicine and Rehabilitati
Volume 92, Issue 3, March 2011, Pages 411-418

ELSEVIER

24%

Original article

A Longitudinal Study of Depression From 1 to 5 Years After Spinal Cord Injury

Jeanne M. Hoffman PhD [a], Charles H. Bombardier PhD [a], Daniel E. Graves PhD [b], Claire Z. Kalpakjian PhD, MS [c], James S. Krause PhD [d]

Authors:	James S Krause
Publication Detail:	Type: Comparative Study; Journal Article; Research Suppor
Journal Detail:	Title: Archives of physical medicine and rehabilitation V -821X ISO Abbr Med Rehabil Publication Date: 2010 Nov
Date Detail:	Created Date: 2010-11-03 Completed Date: 2010-12-16 Revised Date: 2014-01-16

3 y. after SCI

OPEN ACCESS PEER-REVIEWED

RESEARCH ARTICLE

Anxiety and Depression in Patients with Traum rd Injury: A Nationwide Population-Based Cohort

8,8%

Sher-Wei Lim, Yow-Ling Shiue, Chung-Han Ho, Shou-Chun Yu, Pei-Hsin Kao, Jhi-Joung Wang, Jinn-Rung Kuo

Published: January 12, 2017 • https://doi.org/10.1371/journal.pone.0169623

5 y. after SCI

NeuroRehabilitation 29 (2011) 9–21
DOI 10.3233/NRE-2011-0672
IOS Press

Factors predicting depression among persons with spinal cord injury 1 to 5 years post injury

9,7%

Juan Carlos Arango-Lasprilla[a,*], Jessica M. Ketchum[b], Angela Starkweather[c], Elizabeth Nicholls[a] and Amber R. Wilk[b]

[a]*Department of Physical Medicine and Rehabilitation, Virginia Commonwealth University, Richmond, VA, USA*

Spinal Cord. 1997 Aug;35(8):516-20.

Psychological investigation of spinal cord injury patients

16%

Scivoletto G[1], Petrelli A, Di Lucente L, Castellano V.

Archives of Physical Medicine and Rehabilitation
Volume 92, Issue 3, March 2011, Pages 411-418

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Original article

A Longitudinal Study of Depression From 1 to 5 Years After Spinal Cord Injury

Jeanne M. Hoffman PhD [a], Charles H. Bombardier PhD [a], Daniel E. Graves PhD [b], Claire Z. Kalpakjian PhD, MS [c], James S. Krause PhD [d]

16,6±10,6 y. after SCI

Rehabilitation Psychology
2017, Vol. 62, No. 2, 178–185

0090-5550/17/$12.00 http://dx.doi.org/10.

Posttraumatic Stress Disorder After Spinal Cord Injury

22%

Yue Cao, Chao Li, Susan Newman, and Jasmine Lucas
Medical University of South Carolina

Susan Charlifue
Craig Hospital, Englewood, Colorado

James S. Krause
Medical University of South Carolina

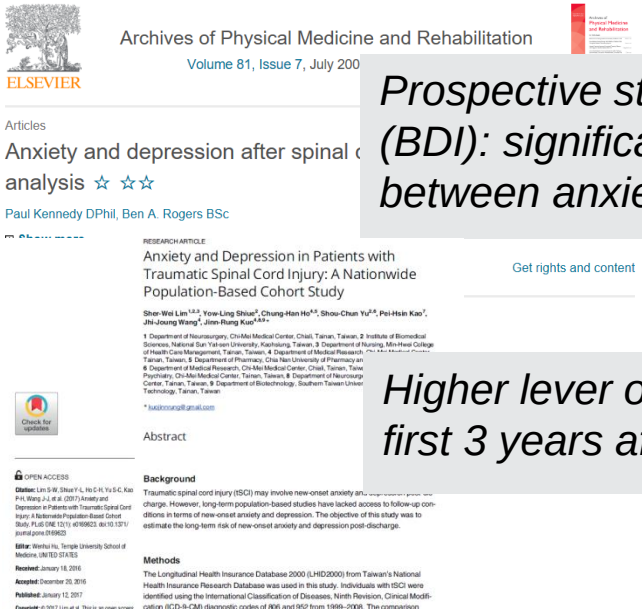
Present study

5,5 y. after SCI - 19,6%

Results variances is explained by different types of diagnostic testings: clinical interview, BDI, QD, DSM, OAHMQ etc., that are not always specific for certain clinical situation and incomparable with each other.

DISCUSSION

Anxiety level in patients in long term after SCI

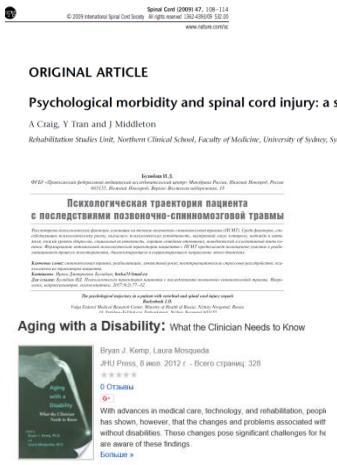


Prospective study 104 patients (BDI): significant correlation between anxiety and depression

Higher lever of anxiety during first 3 years after SCI

Present study:
*Trait anxiety - **92,1%***
*State anxiety - **86,3%***

Contributory causes of depression in SCI



Neurologic disorders,
Bowel and bladder disfunction,
Pain syndrome,
Limb muscle spasticity,
Infection,
Patients without treatment,
Males

Present study:
In patients with depression was revealed significant dependency of its level from severity of neurologic dificit and pelvic organs disfunction

DISCUSSION

High figures on hostility index was diagnosed in 11,7% cases

- Indirect aggression
- «sense of guilt»

High rates of aggression in patients with depression (BDI≥10)

- irritation
- offence
- negativism
- suspicion

Consolidated figure of external aggression is lower than conslidated hostility index

Patients after SCI are not aggressive but to a certain extend hostile

Psychological rehabition course

- Reduce of feeling of hostility and suspicion
- Neutrolize tendency to self-destructive behavour and isolation
- Practice skills and ways of constructive reaction at aggressive impulses
- Develop skills of effective coordination
- Training of goal-settings

Disclosure

The authors state that there is no conflict of interest

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