

Early Stressful Life Events, which caused Depression Probably are associated with the Development of Dementia.

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Abstract :

Recently the controversial results of a large, prospective population study, important for the diagnosis and treatment of dementia were presented [1]. The authors emphasize their conclusion already in the title of the paper and state "Stressful life events are not associated with the development of dementia". They discuss many studies, which lead to an opposing conclusion, namely that there is the causal relationship between stressful, adverse life events and the risk of dementia, however they quote also two other papers leading to a denial of such a relationship.

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Keywords: dementia

Received May19, 2016; **Accepted** Oct 06, 2016; **Published** Oct 12, 2016

Our own investigations on this issue, belong also to those, which support the existence of the causal relationship between adverse events and the onset of cognitive impairment [2]

Our survey was carried out among 90 people between 52 and 81 years of age, the participants of so called University of Third Age. Participants of our study, in a conversation with the members of our team responded to 140 items of the elaborated structuralized interview, concerning all sorts of possible risk factors of dementia. Our structuralized interview contains the question related to: 1. Health state, actual therapy, diet and genetic conditioning, 2. Unfavorable events in childhood, in youth and adulthood, 3. Overview of actual possible, negative, stressful influences, 4. Review of the present physical and mental activity, 5. Resources of defense against stress.

We performed also some objective measurements. We used so called Montreal Cognitive Assessment, the neuro-psychological test of the efficiency of working memory system accessible on-line, which is an equivalent to so called "Walking Corsi Test" and also the measurements by means of some tools used in psycho-physical laboratories. We measured the time of reaction and the parameters of "visuo – motor" coordination. We decided to present the preliminary results of our study by choosing 10 participants, who attained the worst values (number of points) in the MOCA and 10 participants who attained the best value in the MOCA. We found that the difference between the number of points for risk factors even for these small samples is statistically significant [2]

Our survey has similar drawbacks, enumerated by Sundström in relation to majority of former studies, it means it has partly retrospective design. The sample sizes is small and the measurements of life

events are not precise [1].

We are convinced however that the discussion and further investigations are necessary, because the question remains open - what makes that only some individuals develop premature impairment of cognitive performance and later dementia. Probably it is necessary, to discuss further the essence of all risk factors of dementia.

Sundström et al. tested also if the occurrence of positive life events could mitigate or overcome the possible adverse effects of negative life events on dementia [1]. We in our survey tried to check the influence of "resources of defense against stress". We discerned among such resources: 1. Acquired, personal, psychological competencies 2. Sensuality, body awareness, libido, 3. Coherence (a. understanding of the world, b. feeling of meaningfulness, c. resourcefulness), 4. Interest (curiosity) of the world, 5. Professional commitment, creativity.

It should be noticed, that among the authors discussing the possible causes of dementia there are researchers, who attach attention rather to medical, somatic risk factors and researchers who attach a greater importance to psychological and social factors.

Some authors performed the systematic literature review of the most essential, modifiable risk factors for dementia [3]. They additionally gathered the opinions of experts obtained through so called Delphi consensus study. Using this methodology the determined list of the most important risk factors for dementia include: depression, hypertension, diabetes, obesity, hyperlipidemia, physical inactivity, and smoking.

Dementia it is mainly the impaired cognitive performance, so some authors argue that the important risk factors could be results of former changes in the previous cognitive activity [4]. They are convinced that

the early emergence of cognitive impairments results from: the quality of mother - infant interactions, adverse events in childhood, long cumulative exposure to stress, ineffective coping strategies, long negative emotions, worry, rumination, and many social factors.

According to these authors neuroticism, negative affectivity, depression or emotional instability are in old age a good indicator of the cumulative level of psychological stress experienced during the life span. So, according to these authors the stress-related variables are important predictors of cognitive aging. In fact, these statements are not in contradiction with proponents of somatic risk factors. On the first place of the ranking list proposed by Deckers et al. is the syndrome of depression [3]. The key importance of the existence of depression prompts in turn to examine the factors that predispose to the development of this syndrome. This syndrome can be treated also as the manifestation of a prolonged stress. It is comprehensible that adverse life events can evoke the depression. It is also known, that depression affects unfavorably the state of health. Syndromes of depression, neuroticism, mild cognitive impairment, and dementia are interrelated [5-7].

Sundström et al. asked the participant "whether the life event had occurred in the past year (first test wave) or in the past five years (next test waves). They remark in the "Discussion" chapter that "it cannot be ruled out that major life events that occurred earlier in life, in childhood or adolescence, could be related to the later development of dementia". The most disadvantageous events in very early childhood are the consequences of 1. death of a parent, 2. the parents' divorce, 3. loss of other significant person, 4. domestic violence (physical and/or sexual abuse), 5. alcoholism in the family, 7. criminal behavior of family members, 8.

serious illness in childhood, 9. the lack of family support, 10. bad upbringing.

Probably it is reasonable to postulate that the future investigations should take into account especially the very early childhood stressful life events and evaluate carefully the development of long standing depression.

Some authors postulate, moreover, that the impact of adverse events in early childhood can predispose to the formation of different subtypes of dementia. However till now there are no data related to such dependence.

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