

Old and new problems of combatant posttraumatic stress disorder

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Abstract

Background: Almost all studies describe post-traumatic stress disorder (PTSD), which is relatively new diagnostic category as accepted by ICD-10: trauma, re-experience avoidance and increased arousal. The purpose of this study was to determine the “pathos” of the disease (personality features), factors, forming in the “hot point” and the “nosos” of PTSD as a dynamical active pathological process, starting in the peaceful life.

Material and methods: We used a battery of methods of investigation, auditioning each other, including statistical methods. The patients were totally 308 male combatants aged 22-43 y. o. (main group – 174, who committed violent offence after returning from «hot point») and control group – 134 persons without such behavior, observed in the period 1993-2005 years.

Results: The quality of specific adaptation to the military environment usually increases during prolonged stay in it. This way, in the main group were found heightened frequency of readiness to vital emotionally-affective manifestations, unconscious fear with the feeling of increasing threat, objectless anxiety, insomnia and nightmares, depression with groundless worries or with monotonous non-expressed melancholy, non systematic self-accusation ideas, vacancy towards everything around, “tiredness of life”. Asthenia together with vital tonus decreasing, hyperesthesia, hyper pathia, incontinence of emotions, psychic numbing dysmnnesia also were created, but previously in the second group. In the main group (with violence behavior) often was mentioned combat brutalization.

Conclusions: Our findings suggest that the “pathos” of the disease (new reactive abilities, negative personal changes) appears and only after coming back to the peaceful life, under an impact of additional insalubrities and the “nosos” of PTSD is formed as a dynamical active pathological process. Obtained data may indirectly indicate opened aggressive behavior’s opportunity (prediction) in combatants.

Key words: posttraumatic stress disorder, inner pathological mechanisms, adaptation, criminal activity.

Introduction

Posttraumatic stress disorder (PTSD) is among the main disorders, which frequently begins after being in “hot points at war”. But it is relatively new diagnostic category. In the Diagnostic and Statistical Manual of Mental Disorder (DSM-4) three clusters of PTSD symptoms are listed: trauma re-experience, avoidance and increased arousal. To fulfill the criteria for PTSD a person must have been exposed to life threatening stress (1, 15). According to published data inner mechanisms of PTSD

are insufficient to be taken into account in prevention strategies of deadaptation, criminal violence and for the development of disorder’s investigations as a scientific problem (2, 3, 15).

According to ICD-10, only one diagnostic category – “reaction to hard stress and adaptation disturbance” – is identified as having explicit etiological connection with psycho-traumatic impact (only if this impact is extraordinary). In fact, it is identical to criteria of reactive states which do not always disappear without any impact on the personality.

Such sections as brief “acute reaction to stress” and “adaptation disturbance” do not cause any serious objections, but prolonged PTSD diagnosis causes certain doubts. For instance, we can suppose, that hard stresses act only as catalyst, but not as specific etiological factors; that PTSD would not necessarily be verified. The form of disease occurs on constitutional base, is identified by negative disorders, their typical co-existence with positive (reactive) symptomatic. Pathogenesis is for a long time considered to be a dynamical process, where cause unfortunately, main symptoms were not included into PTSD’s diagnostic criteria of ICD-10.

Entering of diagnostic description of PTSD into ICD-10, no doubt, had great social importance, opening the way for complex research of the problem of negative psychological and medical consequences of combat psychic trauma, natural and man-caused disasters, terrorism and violence. At the same time diagnostic criteria of PTSD in ICD-10 are not sufficient for understanding the mechanism of consequences of psychic trauma. In fact, they are identical to those, formulated by Karl Jaspers (1913) as well as to later specified criteria of reactive states. According to these criteria, such states manifest in case of impact of psychic traumas, which (directly or indirectly) are reflected in the symptoms of the disease and do not always disappear without any impact on the personality. The “postreactive” development of disease and even the development of steady organic changes are possible.

On the other hand, any mental disease occurs on certain constitutional base, but does not lose its nosologic independence. The form of disease is identified by typical negative disorders, their typical co-existence with positive (reactive) symptomatic. Etiology only limits the range of possible consequences, but does not close it completely. As it is well-known, pathogenesis is for a long time considered to be a dynamical process, where cause and consequence may change places. Unfortunately, main symptoms were not included into PTSD’s diagnostic criteria. In the description if ICD-10, PTSD is nothing more, than simple syndrome.

The aim of the investigation. Our paper considers a part of the problem under investigation - determination of different clinical-dynamic characteristics of combat-related PTSD, as well as personality features and prerequisites and mental disturbances for better understanding etiological and pathogenesis bases in mentioned category.

In the present paper we try to verify the concept which differs from the one accepted by ICD-10: in our view, firstly the “pathos” of the disease (new reactive abilities, negative personal changes) appears and only after coming back to the peaceful life, under an impact of additional insalubrities the “nosos” of PTSD is formed as a dynamical active pathological process [4, 5].

Material and methods

Totally 308 male combatants, aged 22-43 y. o. (main group – 174, who committed violent offence after returning from «hot point») and control group – 134 persons without such behaviour, were observed in the period from 1993 to 2005

years. Target participants were identified according to results of forensic psychiatric examination (1st group) and examination at Rehabilitation Center and Hospital for War Veterans in Moscow. The data collections (questionnaire’s points) were previously got at self-report; but additional data about personality feature’s dynamics were got in face-to-face interview.

All the procedures followed in accord with standards of the ethic Committee. Participants firstly were informed about confidentiality about described information and were explained the purpose of the investigation in details.

Methods of investigation: clinico-psychopathologic; quality of life self-evaluating scales, pathopsychological (MMPI, projective “Hand test” and Lusher, test Bassa-Darka, Impact of Event Scale-Revised by Horowitz M. J. (1979) in modification by Marmar C. R. et al. (1996) and statistical methods [8, 14].

We used special card for investigation, which unclouded biographical characteristics, personality forming factors, behavior in childhood and in adolescent period, accentuation type, psychological and social stressors during life, different traumas, especially subjective social psychotraumas, behavioral disturbances after being at “hot point”, coping-mechanisms after returning into normal life, quality of life objective evaluating, criminal anamnesis, mental disturbances before committing crime, mental state at the period of committing crime, results of traumas, wounds, confusions diagnosis at the last investigation and at the period of committing crime, forensic qualification of the mental state.

Psychiatric Assessments. Using ICD-10 two independent psychiatrists carried out the assessments. The agreement rate between the assessors was 94%. The duration of the illness in both groups was not less than 2 years prior to study.

Results and discussion

War combatants do differ from others in the style of their emotional reactions, affects’ contents and worldview – in considerable, rather special and quite one-type way. This specific of the psychic is shown in everyday life and in hospital (especially when one watches the combatants when they meet together).

In the main group’s combatants significantly dominated dysphoric conditions (in comparison with control group) – 11.1% and 6.7%, $p > 0.05$. But in the control group significantly main was impressive type of emotional reactions, according to passive-defensive tendencies – 27.6% and 17.1%, $p > 0,0025$.

Negative symptomatology of mental disorders, observed in combatants, is reflected in position of ICD-10, as “chronical personality changes after catastrophe”. But contrary to this position diagnostic criteria of PTSD show, that personality change may be its chronic outcome. At the same time, the diagnosis mentioned above should be stated only after 2 years from the moment of PTSD verification. That’s why the period of urgent adaptation is characterized by regressive, ontogenetically earlier forms of reacting. The defense of the organism is revealed in conscience disintegration.

Combat stress, being a consequence of extreme impact, appears in every person and obligatory raises the risk of pa-

thology formation. Previous individual experience turns out to be insufficient and even discordant with the reality.

Acute stress reactions are of "out personal" character; with minimal individual differences, and their constitutional "basis" is almost not visible. At the same time, the degree of mental activity's disintegration, the predominance of sano- or pathogenetic tendencies in the dynamics of disease depend on premorbid vulnerability. We observed prevalence of comorbide explosive features in the main group in comparison with the control persons (39.7% and 12.0%, $p > 0,001$) in comparison with frequency of asthenic disturbances in control combatants (15.0% and 19.4%, $p > 0,0002$).

After the acute period is over, the cognitive processing of psychotrauma experienced and its consequences starts. The adaptation to unexpected changes of life conditions is often complicated by emotional (more seldom – obsessive-depressive) disorders. As a rule these disorders are reversible during several days, weeks or (more seldom) months. As a rule, appearance of more prolonged and more specific mental disorders is connected with the factor of personal predisposition. Specifically, PTSD symptomatology reflects decompensation of premorbid personality features. We regard this symptomatology as a pathoplastic later development, the specificity of which (relative to the source of decompensation) is gradually lost.

The pathogenetic mechanism in the condition of prolonged traumatic combat stress is formed in a different way. At the same time, combatant PTSD can be understood as a transforming reactive process of heightening specific steadiness of organism against military stressors, fixating in memory traces of new behavioral skills and stereotypes, in order to save life and fulfill the necessary tasks. The quality of specific adaptation to the military environment usually increases during prolonged stay in it. Certain compensatory features become more specific and steady. Out of them we should specially highlight those, which are important for readaptation in subsequent peaceful life: the perception of environment as a hostile one; hyperactivity of attention, watchfulness, automatic actions; readiness for impulsive defensive reaction at threatening factor in the form of hiding ($p > 0,0001$), running away or aggression and physical destruction of the sources of threat; decreasing of susceptibility to suffering and death; "going away" from moral problems solving; ability to momentarily mobilize all the forces and for quick relaxation later.

In our view, described specific adaptation in military conditions happens because of cortical behavior control's depression and deep-undercortical phylogenetically old vital affects releasing. In its turn, the following moments are the biological base of the above-mentioned reaction to stress: sensoric hyperafferentation, biological deprivation, psychosomataical exhaustion, protective inhibition of cortical neurons, which protects them from sensor damage, prolonged limitation of basic ("organical") needs, deficit of intrapsychic overexamination, impossibility to verbalize many military experiences.

In this way, heightened readiness to vital emotionally-affective manifestations, unconscious fear with the feeling of

increasing threat, objectless anxiety, insomnia (11,5 % cases in the main group and 25,6 % - in the control; $p > 0,001$) and nightmares (35,7 % in the main group and 13,5 % in the control; $p > 0,0001$), depression with groundless worries or with monotonous non-expressed melancholy, non systematic self-accusation ideas, vacancy towards everything around, "tiredness of life", asthenia together with vital tonus decreasing, hyperesthesia, hyperpathia, incontinence of emotions, psychic numbing (prevalent in the 1st group - $p > 0,0001$) and dismnesia are created. Simultaneously impulsive motives of behavior (often including brutal explosiveness, psychoactive substances abuse, and suicidal tendencies) are formed. In the main group (with violence behaviour) often was mentioned combat brutalization ($p > 0,0001$). Not only associations, connected to former military experience, but also any other negative life events may contribute to vital affects' exacerbation. Military and peaceful environments are completely contradictory, so after the war even usual events may become stressogenic factors.

Reorganization of psychological, neurohumoral and psychophysiology processes, aimed at long-term adaptation to extreme conditions involves not only deep "layers" of psychic, but also ontogenetically later (and so more vulnerable) layers – which means, the structure of personality itself. But, in contrast to deficit states of processual genesis, upper emotions suffer much less. Socially positive aims are kept (or often even enhanced) in initiative behavior of military combatants. In several cases compensatory-adaptational psychobiological and personal changes, acquired in military environment, become a steady emotional-behavioral stereotype. Outside military situation this adaptation is considered to be pathological. Positive PTSD symptomatology in combatants also has its peculiarities. Repeated feelings and memories about traumatic events often transform into obsessive-phobic complexes (77.2%).

For example, obsessive memories about war of one combatant reduced completely, but he suffered from obsessive fear for the safety of his small son and wife. We observed phenomena of involuntary-perceverative, organic character, similar to reminiscences: eidetic echomnesia in the form of "frozen", repeated, but at the same time bright, sensually full visualizations of the events of the past. In case of increased cortex inhibition (for instance, when eyes are closed, during falling asleep or sleeping), impulsive motives of behavior (often including brutal explosive outbursts, psychoactive substances abuse, suicidal tendencies) are formed. It seems that the appearance of echomnesia is connected with existence of dominant excitement point in structures of "sensory brain", which may appear as a consequence of experienced prolonged and intensive metabolic effects of stress reactions. In this contest we considered to be informative statistically significant correlations between panic attacks and paroxysmal activity's low threshold at brain EEG ($p > 0,005$). Another syndrome of PTSD ("avoiding conditions, which remind about stress") also has its own peculiarity. At the same time many combatants consider their military past as "the best years of life", choose

corresponding professions (for instance, work in police), dream to return to military environment and really feel themselves better in it. This is not an accident, because in the conditions, which contributed to the development of mechanism of full long-term adaptation, this state is compensated.

We got some statistically significant differences in pathopsychologic investigation of combatants, who committed violent offence, – in comparison with control group. For example, projective “Hand test” showed tendency towards aggressive behavior in cases of sanity (during forensic examination) – $p > 0,05$.

In the main combatant group personal deadaptation level was significantly greater (point MAL – $p < 0,05$) and tendency towards avoiding reality more expressed (point WITH – $p < 0,0001$).

This data correlates with the rates of executed Bassa-Darka test. According to Bassa-Darka test all investigated positions were significantly different in two groups. Correlations between animosity index and injury level and with feeling guilty were estimated ($r=+0,85$; $p=0,0001$ and $r=+0,74$; $p=0,0007$). The rate of possibility of aggressive behavior in comparative combatant group lets us suppose that those persons became aggressive only in especially important situations.

Special attention should be given to distinctly higher percentage of the answers in the main group on the Crip category ($n=7,5$ (main group) and $n=3,4$ (comparative group)), which reflects hypochondria and real health problems.

Distinctly higher level of irritability in combatants of the main group reflects their high readiness to show negative feelings after the smallest agitation (heightened hastiness, rudeness), which, combined with heightened susceptibility to offence ($p < 0,01$) easily leads to aggressive acts connected to the situation.

Patient’s sense of guilt is connected to his conviction that he is a bad person, and also points at remorse he feels. Indexes of aggressiveness and hostility in the main group were distinctly higher than in comparative one (where they differed from the indexes of aggressiveness and hostility in population as a whole).

Using modified 8-coloured test by Lusher showed significant greater anxiety level in the patient’s main group ($p=0,004$), what correlates with “Hand test” results. In main group of combatants additional colors on the first places in color range were found distinctly more often ($p=0,037$), than in comparative group. We should mention, that on the first place in the main group such colors as +5 ($p=0,001$), +7 ($p=0,05$) and +0 ($p=0,05$) were found distinctly more often, while in comparative group this place was mostly given to +2 ($p=0,02$) and +4 ($p=0,02$). In order to reveal the peculiar features of the phenomenological shape of PTSD and its intensity in groups being compared, we used Impact of Event Scale-Revised (IES-R) – Horowitz M. J., Wilner N. et al., 1979), modified in 1996 by Marmar C. R. (1996), using rank correlation (Spearman) in the main combatant’s group showed straight dependence between “opened” aggressive behavior (Hand test) and intrusion level – $r=+0,73$, $p > 0,003$; physi-

ologic excitement – $r=+0,55$, $p=0,01$. Thus, information got by IES-R method may indirectly indicate opened aggressive behavior opportunity.

Consequences of military traumatic stress – is one of the main inner barriers to the harmonious social adaptation of combatants in society. Initial stress, which they got on a war, is complicated by a secondary one – the necessity to adapt to usual conditions. It often becomes a basis for behavioral deviations, which may also include aggressive tendencies. That’s why we should consider the treatment and rehabilitation of such persons as one of the priority medical and social tasks in XXI century.

Conclusions

We consider this paper as a part of the problem under investigation, mentioned above – determination of different clinical-dynamic characteristics of combat-related PTSD, as well as personality features and prerequisites and mental disturbances for better understanding etiological and pathogenesis bases in mentioned category. In our view, acquired data points at correction of the scientific concept stated at the beginning of the article. They already may have certain independent practical meaning for the therapy and rehabilitation of combatants, but also serve as basis for development of pathogenesis planned for the future and for understanding clinical dynamic of PTSD.

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