

The brain energy-starvation (BES) syndrome: its complex diagnostics and treatment

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Abstract

The “Unclear Head”, or brain energy-starvation syndrome (BES), is a widespread disorder sometimes found already in children. This syndrome serves as a background for a great number of borderline psychic disorders and for panic attacks, in particular. Two main factors play their roles in its pathogenesis: pathologic impulsation from intervertebral disks and stressogenic brain hyperactivity. Symptoms of this kind are similar to manifestations of asteno-depressive disorders from other sources and are not often identified by psychotherapists. Data from the “Constructive Drawing of a person” test contain pathognomonic indications of the presence of this syndrome. Identification of any vertebrogenic components in the “Unclear Head” syndrome, as well as the influence of other factors, leading to brain hypoxia, is very important for the adequate complex prescription for the treatment of psychotherapeutic patients so as to eliminate this source of pathology.

Zusammenfassung

Der “unklare Kopf”, oder - das Syndrom des verhungerten Gehirns - ist eine weitverbreitete Störung, die manchmal auch Kinder treffen kann. Dieses Syndrom ist im Hintergrund einer großen Zahl von psychischen Störungen von Borderline und im Spezifischen für Angstattacken, wirksam. Zwei Hauptfaktoren spielen eine Rolle in der Krankheitsentstehung: Das krankhaftes Pulsieren von Bandscheiben und die Stress auslösende Hyperaktivität im Gehirn. Diese Art von Symptomen ähneln den Manifestationen von astro-depressiven Störungen durch anderen Auslösern, und werden von PsychotherapeutInnen oft nicht als solche erkannt. Daten basierend auf dem Test: ‘Konstruktives Zeichnen einer Person’ beinhalten pathogenomische Indikationen der Gegenwart dieses Syndroms. Identifizierung von, aus bandscheibenauslösenden Teilen des „unklaren Kopfes“ Syndrom, sowie ihre Beeinflussung durch andere Faktoren die zur Gehirn Hypoxämie führen können, sind für die fachgerechte und komplexe Verschreibung der Behandlungen für psychotherapeutischen PatientInnen, um den Grund dieser Krankheit zu eliminieren, sehr wichtig.

Résumé

La « tête confuse » ou le syndrome de déprivation énergétique du cerveau est un trouble répandu, rencontré parfois chez les enfants. Ce syndrome sert de base à un grand nombre de troubles limites (*borderlines*) et notamment d’attaques de panique. Deux facteurs principaux jouent un rôle dans sa pathogenèse : une impulsion pathologique provenant des disques intervertébraux, ainsi qu’une hyperactivité stressante du cerveau. Des symptômes de ce type sont similaires aux manifestations de troubles asthéo-dépressifs de sources différentes et ne sont généralement pas identifiés par les psychothérapeutes. Les données du test de « dessin constructif d’une personne » présentent des indications pathognomoniques sur la présence de ce syndrome. Le repérage de toute composante d’origine vertébrale dans le syndrome de la « tête confuse », de même que l’influence d’autres

facteurs menant à une hypoxie cérébrale s'avèrent très importants pour une prescription complexe et adéquate de traitement psychothérapeutique afin d'éliminer cette source de pathologie.

Резюме

«Неясная голова» или синдром энергетического голодания мозга (ЭГМ) – широко распространенное заболевание, иногда встречающееся и у детей. Синдром является источником большого количества пограничных психических расстройств, в частности панических атак. В патогенезе синдрома основную роль играют два фактора: патологическая импульсация, идущая от межпозвоночных дисков, и стрессогенная гиперактивность мозга. Симптомы ЭГМ сходны с проявлениями астено-депрессивных расстройств, имеющих другие причины, и психотерапевты не часто отличают эти расстройства друг от друга. Для подбора адекватного комплекса психотерапевтического лечения и устранения источника патологии чрезвычайно важно распознавание связанных с патологией позвоночника компонентов синдрома «Неясной головы», а также влияние других факторов, ведущих к гипоксии мозга. Указания на наличие характерных для ЭГМ проявлений могут быть получены с помощью теста «Конструктивного рисунка человека».

Key Words

Manual Therapy, Headaches, Psychosomatic Symptoms, Body Dysmorphia

Introduction

Patients' complaining of a feeling of vagueness and heaviness in their heads, accompanied by annoying sensations in the parietal region, are often found in psychotherapeutic practice. Thus a question arises concerning what disorders could be the cause of these symptoms. Diagnostic thinking differentially from a psychiatrist and a psychotherapist about this situation leads to the following options:

1. CNS affection with astheno-depressive syndrome
2. Neurotic depression with anxiety-phobic disorders
3. Disphrenic disorder with senestopathic manifestations
4. Depressive phase in the cycle of cyclothymia.

A practical idea, as a rule, follows only one of these listed directions. Nevertheless, other approaches could turn out very productive, as this research has shown. The significance is that this state is of a neurological nature, rather than psychiatric one. But as soon as patients of this kind address a psychiatrist, clinical psychologist or psychotherapist, the author considers it advisable (and even necessary) for the professional to study this syndrome in detail. This syndrome can also be named the Brain Energy-Starvation (BES) syndrome.

Material and research methods

The data that is set out below is the product of nearly 20 years of medical and research work by the author. Thankfully these developed into a set of usable procedures:

1. A classical clinical “interview” was developed that showed a high frequency of patients’ complaints corresponding to the described syndrome. In the author’s opinion, not less than 60 per cent of patients address a psychotherapist with complaints of this kind.
2. A particular form of somato-psychological research was elaborated and described by the author in his book “Things in the Body: psychotherapeutic methods of work with sensations” (Ermoshin 1999). The methodology of this inquiry investigated a description by the patients of symptoms experienced by them “on a bodily level”. Some configurations of sensations corresponding to different emotional states were discovered. It appears that sensations of heaviness in the nape (described as being from an accumulation of sensations like “resin” in consistency to the formation of a “steel plate”) can accompany a neurotic level of responsibility and a necessity to control situations. A sensation like “steel balls” in the temples is often connected with an experience of chronic irritation. A “blear” appears in the forehead in lighter cases. A “stone” could be felt there in more heavily neurotic cases of experience. In some cases the perceived size of their head, as described by the patients, extends beyond their physiological size. We did not manage to find correlation between sensations in the upper part of the head and any specific psychological factors. Some kind of concentration of sensations in the belly area during fear experiences was also discovered.
3. Research into configurations of elements in constructive drawings made by patients (CDP) before, during the process of therapy, and after it. Specific recurring elements in the configuration of the drawing, corresponding to the described syndrome were discovered. Summary data about the results of research into the differential-diagnostic possibilities of this test was published by the author (Ermoshin 2002).
4. The author of this article, being a doctor who, during the years of psychotherapeutic residence, had a training in manual medicine and reflexive therapy, so also had an opportunity (and the interest) to conduct a manual examination of patients’ painful body zones during the course of therapy. It led to revealing specific muscle tensions and painful points in the cervical vertebra section and in other sections of spine among patients with complaints of the “vague, unclear head”. Of some importance also were the author’s observations concerning positive effects of muscle relaxation and other manual therapy elements (especially where it concerned cervical and pectoral spine sections) on the state of patients’ health.

5. In some cases when it was possible, instrumental research data was taken into account: the data was from computer tomography, magnetic resonance tomography, other neuro-visualization methods, electro-encephalography, ultrasound imaging, and others.
6. Observation of the results of different therapeutic approaches showed a low effectiveness of both psychiatric pharmacological treatment and purely psychotherapeutic approaches by different modalities for any of the given pathologies.

About 3,000 patients were examined in the research (150-250 a year on average over 20 years) through various methods of psychiatric inquiry and somato-psychologically, with the use of drawing testing and palpitational methods (according to the canons of manual medicine and reflexotherapy (acupuncture)). About 100 patients were examined with the specific purpose to identify the described syndrome, with a deep study of their case histories and using instrumental research. The majority of patients were women (67%). The age scale ranged from 3-5 year old children to much older people (70-80 years). The majority were aged from 14 to 45, with an average age of 32. The majority (about 70%) of their reports concerned neurotic and psychosomatic disorders of persons of different genetic constitutions. 30% were patients receiving basic treatment for alcoholism and drug-addiction. Every patient had a course of complex treatment work, including individual psychotherapy, chemotherapy, elements of manual therapy, and massage. The number of sessions varied from 1 to 50, with an average of 35. The duration of a session was 1 hour. The follow-up after medical discharge was monitored for up to 12 years. Set out below is a description of the studied phenomenon that was elaborated on the basis of complex observation and treatment of patients in the course of therapy.

Results

In psychotherapeutic practice, patients often *manifest* the following descriptions of bodily sensations that relate to their symptoms. In cases of general depression, these patients can describe themselves as having a “boiled” brain, a sensation of vagueness in head (described as a “wadding pad”, a “muddy” head, or “scales” on eyes), vertigo, discomfortable sensations in the upper part of the head, weakness in extremities, difficulty in concentration and attention switching, obsessions, disposition towards a pessimistic perception of reality, a decrease in memory, headaches from a background of psychic overload (“effort headache”), amongst other symptoms. Annoying sensations in the upper head area in some cases were of a pulsatory character (in a heart rhyme). Some patients heard pulsatory noises in their heads. Patients also complained (in cases of

worsening symptomatology) of annoying eye sensations, and a seeming impossibility to open their eyes. Patients often described their state in such words: *“It happens that I have pins and needles in my leg, but I also have a sensation of pins and needles in my head.”* *“Weakness, swaying, vertigo. It’s a feeling like before exams – bustle, vertigo, deadlock...”* *“Bad thoughts get into my head – I shed tears. After you cry – it seems better, but not for a long time...”* *“There is no strength to knock a bad thought out my head. As if a hammer is knocking in my nape, deep inside, and I want to stop its beating.”*

Or: *“My head is like in the mist, I feel heaviness, I am under the pressure, under thoughts of my own inferiority – my life is ruined: I am not old, but I am disabled. I’d better have problems with gynaecology -- one cut and - no problem! It is better than to be tortured by such obsessions: hard to look aside, hard to switch attention... I am inside myself and I can do nothing. ‘Tomorrow will be better,’ I say to myself, but tomorrow comes and nothing changes. Headaches are the background of my experiences. I often feel ‘stuffy’ in my temples. As if a pancake is lying on my head. None of the pills help me. Sometimes I take away my headache with aspirin. (I have) no attention... Thoughts in my head give a weakness to my legs, the numbness passes to my arms... It is a lack of the air, I am, as it seems, gasping”.* And so on.

Some patients in simple disorder cases describe their sensations (with their eyes closed during the course of the interview) as if a dark cloud is lying on the top of their head; in more serious cases this sensation is described as accumulation of some liquid or mass, even down to the sensation that a heavy metal disk is lying on their head (“flat cake” symptom). In some cases, something heavier (a kind of a dumb-bells) is “forcing through” their head.

Discomfortable sensations can also be present in the head itself, in the form of feelings like an accumulation of gas, liquid or resin in the roof of the skull, or sometimes in the forehead and occipital zone of the head. In some cases, the content of the head is felt as something “solid” (like a stone or wood). The total size of their head is often described as enlarged. Sometimes a “bandage”, “hoop”, or “helmet” could be felt around their head. At the same time, their extremities are felt as “uncompleted”, “empty”, or cold.

On the other hand (in the state of inner concentration during the somatopsychological study), patients described that they sensed a neck constriction in the form of a funnel (“funnel symptom”), or a total barrier between the head and the body, or, on another body level, in the form of a wedge, trap, or partition (“partition” symptom). Some patients describe the sensation of having a dog collar around their neck.

In some cases, their background state of discomfort develops into a state of sharp-discomfort, which, as a rule, is qualified as “sympatho-adrenal crisis”. This disorder is promoted by a preceding hypoxia (in particular when in public transport) or by situationally-conditioned asthenization (feeling of weakness, deficient sleep, abundant psychic ‘loadings’). Not being ready for experiencing any such a cataclysm in their state, patients often interpret this episode of an “emergency” adrenaline surge as a sign of mortal pathology. Sometimes this sort of surge is accompanied by tachycardia, short breath, sharp anxiety, and sometimes with diarrhoea during the attack and abundant urination after it’s gone. Experiences of this kind can become a basis for phobic, hypochondriac disorders and corresponding self-restrictive behaviour of patients. Patients often consult a psychiatrist or a psychotherapist after that kind of ‘panic attack’.

Examinations:

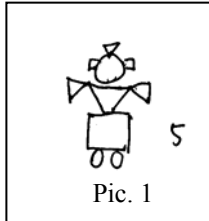
When examining patients who present with these symptoms, your attention can be drawn to the dullness of their eyes, dilated eye pupils, quite often lowered eyelids, and the head somehow pressed into the shoulders. During the process of manual inspection, they can manifest distinctive muscle tensions with painful points in the area of muscle attaching to the flange seal, in areas of the neck and chest spine. These can be described as ‘mio-fixations’ with a shortening of given muscles. In the process of palpation, they are felt as “spindles”, “tumors”, and they generate abundant warmth.

Additional inspection using methods of neuro-vizualization (computer tomography, magnetic resonance tomography, and other) shows the absence of any visible changes in brain tissue, or subcortical leucoareosis (specific for discirculatory encephalopathy), but does show covert disorders in vertebral positional relationship, osteochondrosis phenomena, and in some cases – rupture of intervertebral disks in the cervical and also in middle- and lower- spine sections. Reo-encephalography uncovers hypertension of the middle and small caliber arteries in the vertebro-basilar basin. Ophthalmoscopy, in cases, uncovers retinal angiopathy of both eyes in the form of arterial constriction and crimpiness some. Ultrasonic research uncovers skewness of vertebral arteries. Electro-encephalography shows moderate diffuse disorders of the brain’s bioelectric activity, without any indication of local pathology.

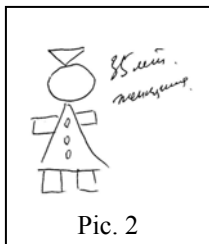
Testing

The “Constructive Drawing of a Person” test, in the author’s opinion, demonstrates almost pathogenic signs of presence of the described syndrome: this test rarely takes more than a minute

to carry out. To carry out this test, you need a sheet of writing paper folded 4 times and any writing device. The task for a patient is formulated this way: “Draw a symbolic figure of a person by using squares, circles and triangles. The number of elements in this figure must be 10”. If



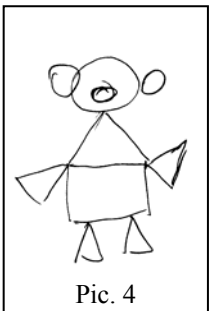
Pic. 1



Pic. 2



Pic. 3



Pic. 4



Pic. 5

needed, a patient may be given the explanation that he or she may increase or decrease the size of elements, extend them, or overlap them. The proportion of used elements is up to them. The only limitation is that the total number of elements must be 10. (In becoming acquainted with using this test with patients, the author gives his acknowledgement to V. V. Libin (Libin, 1994), who was researching possibilities of this test within the frames of his own theoretical approach, different from the author’s one.) Thanks to this simple test, it is possible to get evidence of the BES-syndrome in patient’s state within 1 minute, so it seems rather valuable for psychotherapeutical practice.

Drawings

There are two sets of basic features for the kind of configuration of drawing elements that the author considers as a pathognomic one for the “Vague Head” syndrome. These are illustrated in aspects of the five sample drawings.

Type 1

1.1 Composite Body. Where (as in Pic. 1) a body is composed in the drawing from two or more elements. The body can be drawn with a point-up triangle (as in Pic. 2). There is a presence on the drawing of constructive elements drawn with one or more triangles.

1.2 Complex Body. Where, built into the body are various elements (circles, rectangles, triangles, including both rectangles and rounded shapes) (as in Pic. 2) and also inserted into it ciphers indicating a personage’s age (in the case when we ask a patient to mark their age) (as in Pic. 3) serve as an equivalent of the given feature. Some additional elements inserted into head’s contour also could be conceded as other signs of that kind that correlates with sensations in sub-occipital section and also with the feeling of deficiency of air (as in Pic. 4).

1.3 Presence of a “cap”. A “clown cap” in the form of triangle and also other head decorations in the form of “bows”, “forelocks” pictured like triangles, “ear-rings” and also other additional elements around the head (as in Pics. 1 to 4) or the refinement of the round head into a triangle (not shown).

Type 2

2.1 Disproportionally large head. The head is large relative to other parts of the body. (as in Pics. 2 to 5).

2.2 Relatively small body and shortened extremities. This is seen in manifested disorder cases depicted with small triangles (Pic. 1 and 3-5).

From the obligatory listed components are two features: from the first group, these are – the presence of constrictions (Waist as in Pic. 1, Neck as in 2, 4, & 5) or “partitions” (Pic. 1 & 4) on the neck or in the body (or presence of additional elements in the body contour) (Pic. 2 & 3). From the second group – relatively enlarged head (as in Pic. 2-5). Combinations of these two features makes the manifestation of the described symptom-complex possible (as in Pic. 5).

Appearance of additional elements on the head possibly signals considerable remoteness and intensity of disorders, or possible headaches periodically experienced by the patient. Any given element configuration should be differentiated from another one, when a triangle “cap”, (as a rule, small) also appears on the head along with the rest of the figure remaining “composed (calm, tranquil)” (single body, the absence of neck, rather long extremities depicted with rectangles). In these cases, we can think about a possible defect in the CNS with a different genesis. Besides the absence of other signs of BES syndrome, a “lacerated” drawing and its “untidy” performance are typical for persons with BES from an “organic” source.

Discussion

What sort of facts reflect the phenomena described above? Before passing to any statements in this respect, the author would like to draw attention to the following data found in an area of research and knowledge adjacent to psychotherapy.

The phenomena of *vertebro-basilar disease and initial manifestations of deficient blood supply of the brain* are studied mainly in neurology. The diagnostic symptoms are considered as headache, vertigo, noise in the head, sleep disturbance, and a decline in capacity for works. According to Schmidt et al. (2001), the presence of two of these symptoms occurring not less than once a week within three months is sufficient for a diagnosis.

The early manifestation of similar neurotic symptoms, the absence of organic neurological symptoms, the presence of vegetative dystonia phenomena were also noticed. In literature this group of symptoms was called The “Barre-Lieu syndrome”, “angiospastic reflex syndrome of

Lutzik vertebral artery”, “back-head sympathetic syndrome”, “cervical migraine”, “vertebral nerve” and “vertebral artery” syndromes (Sitel 1998).

According to the data from the Centre of Manual Therapy of the Russian Ministry of Health, manifestations of vertebro-basilar disease of the first and second degree in the form of headaches, vertigo, noise in ears, and nausea are already present in children of early school age (Lunev 2001). Frequently determined diagnosis of vegetative-vascular dystonia in juvenile ages is also connected with manifestations of the given disease. G. Gutman (cited by Lunev 2001, p.61), as long ago as 1967, also described a specific form of cervical-cranial pain, which happens in children of school age when bending the head forward. According to his report, any blocking of a child’s head articulations manifests first of all in heavy vegetative disorders and then in a worsening of their general health.

The author is totally convinced that this exact group of phenomena finds its manifestation in the descriptions above. Nevertheless, in present psychiatry, this syndrome is rarely articulated in the structure of mixed clinics, and the state of a patient as a whole is interpreted as astheno-depressive syndrome of different nature. According to this diagnosis, treatment prescribed for this category of patients has, as a rule, a “psychiatric” character and concerns neuroleptic therapy together with anti-depressive medications. This is justified by the necessity correcting annoying thoughts, anxious expectations of recurring faintness (“panic attacks”), and corresponding depression.

It should be noted that combinations of soft neuroleptics and antidepressants with anti-anxious effects slightly distorts clinical studies on the symptomatic level. The success of psychiatric prescriptions in the process of the described syndrome treatment, taking into account its pathogenesis, have been relative and temporary, and may be explained by decrease of the brain’s inputs to the background of its partial block and decrease in the average level of anxiety. Concerning the results of this “psycho-oriented” approach, it is impossible to overlook the following social effects. To some extent, such therapy doesn’t always promote patients towards a better adaptation in life. It might soften acute feelings of inferiority. Sometimes, after several years of active treatment, the effects of a relationship between a psychiatrist and this kind of patient results in an official recognition of the latter as a psychic invalid needing corresponding social aid. The author can give examples of this development. Details of people becoming invalids, who, in the case of adequate complex approach, could have remained able to work, also served as an impetus for the author to create this work.

In the author's opinion, two factors play the main role in the "Vague Head" syndrome: a dis-circulatory factor (as a rule, of vertebrogenic nature) and a psychogenic (stressogenic) one. The key moment in the realization of the effect of the dis-circulatory factor was when the author considered *pathological impulses from inter-vertebral disks*, especially appearing in the case of disks in a non-optimal state, where inter-vertebral disks became traumatised with ruptures and other unfavourable variations in the spine. Troubled impulses from collapsed vertebral-impellent segments produce reactions in both muscles in neighbouring zones (their contraction occurs with subsequent formation of mio-fixations) and in reactions of the structures of vessels. Spasms in the blood vessels supplying the brain result in a decreasing supply of oxygen to the brain, in ATP production blocking and in corresponding energy-deficiency in the brain's tissue.

The main evidence of influences of impulsion from intervertebral disks on the state of the tonus of brain vessels and, correspondingly, on the energy-supply of the brain's activity turns out to be *ex juvantibus*.¹ Two ways of decreasing, or preventing, this influencing factor are known to the author. The first is the administration of microscopical doses of Novocain by injection directly into a damaged disk. The second is unblocking a vertebral-impellent segment and liberating the disk from pinching by means of manual therapy.

Unfortunately, the author only knows about the first method second-hand from a description by a neuro-pathologist colleague who witnessed this procedure during an advanced training course. According to him, the patient with the "vague head" sensation was exposed to the following procedure. A small quantity of Novocain was injected into damaged disk with a help of a long thin needle through the front-side surface of his neck. The patient noted a substantial reduction of symptoms in the immediate period after the injection. But, according to my colleague's memory, the effect didn't last and the patient's symptoms came back about 1.5 hours later.

We have to admit that the procedures of manual therapy, properly carried out, aimed at muscle relaxation, ligament mobilization and liberation of blockaded vertebral joints in the affected zone and corresponding liberation of intervertebral disks from redundant pressure, unfortunately lead to similar results. In the minutes immediately after successfully carrying out procedures on the spine, visible relief in the patient's state of health are apparent. They can distinctly feel movements of warm sensations from the unblocked zone to the head, which "clears" with a simultaneous re-absorption of the accumulation of heaviness that was felt primarily in the

¹ *ex juvantibus*: literally 'from that which produces health' but often meaning 'backward' arguments.

upper part of the head. The look of the patients' brightens up. They notice an effect of space lightening, and an increase of acoustic and visual perception. Along with these, often formerly obsessive thoughts "evaporate", and the ability to manifest available knowledge increases with a desire for new data. Here effects could maintain themselves for longer.

A number of authors (Damulin et al. 2001) write about the possibility of the influence of vertebral arteries on headaches. Amongst other factors that might adversely affect the hemodynamics (flow of blood supply) of the brain, and, correspondingly, the level of oxygen in the brain, we have to consider a number of possibilities: arterial hypotension (AH) different from primal AH; Shy-Drager syndrome; secondary AH in the presence of endocrine pathology (chronic suprarenal insufficiency, hypopituitarism, autonomous diabetic neuropathy, hypothyroidism in the presence of autoimmune thyroiditis); secondary cardiogenic AH (weakness of sinus joint, pacemaker migration, mitral valve prolapse, cardiomyopathy); AH after surgery; AH owing to prolonged neuroleptic dosing; AH in the background of hypotensive therapy) (Kotov et al., 2002). We cannot exclude also circulatory disturbances of other nature, capable of leading not only to the formation of functional pathology, but also to organic ones, right up to encephalopathy (as a result of arterial hypertension, collapse of the main brain arteries, heart pathologies, etc.) (Damulin et al., 2001).

The second pathogenetic factor necessary for the manifestation of the BES syndrome, in the author's opinion, is a factor depending on the level of the brain's activity. As in the case of ischemic heart disease, ischemic intestinal disease (found with obliterating endarteritis) and only with constriction of blood vessels, is not enough for the manifestation of such a process. The second element needed in the pathogenesis is an increase in energy consumption. In the case of the heart, it is a physical work or emotional excitement gleaming; in the case of the intestines, it is increased food consumption; and for weak extremities, jogging or walking. For the brain's mental workload, such an increase could come from neurotic anxiety, or irritation, or neurotic responsibility (preoccupation).

The author supposes that the hyperactive state of the brain is felt subjectively by patients as an increase in head size, and finds a corresponding reflection in the Constructive Drawing of a man. This hypothesis is confirmed by observation of changes in the patient's dynamic state and the character of his drawings during the course of successful therapy. There is a liberation of the patient's psyche from excess pressure.

When using the psychotherapeutic approach, elaborated by the author and named as *re-creative psycho-catalysis*, invariably a redistribution of sensed body feeling is observed during

relaxation. At the same time, the head becomes “clearer”, “lighter”, and ‘returns’ to its physiological boundaries, the patient’s body and extremities also subjectively “fill up”, “grow heavy”, and “get warm”. The dynamics of similar changes were described by the author in his book *“Things in the body”* (Ermoshin 1999). There are also indications of “secondary sensations” that “dissipate” in the course of subsequent stages of therapy, sensations like “bandages”, “hoops”, “helmets”, “headphones”, and “grips on the head”.

Repeating the drawing reflects the changes in the contour of a patient’s self-sensation. The general size of a figure can increase. The head on the drawing becomes smaller with respect to other body parts, and arms and legs are depicted as being more filled (they lengthen, are depicted with ellipses and then, as sensations calm, with squares). Additional elements from the head tend to go downwards in the direction of the extremities.

Damulin et al. (2001) discussing tension headaches, also drew attention to these frequent appearances in the background of psychic activity, especially in view of connections with a change of emotional state.

To what one finds in the pictures, on reflection, the following may be added: “constrictions” at the level of the neck, and also junctions at the body level, correlate with blocked zones of vertebral-impellent segments (VIS). Triangle points, or junctions of elements, neatly correolate with the zone of pathological impulsations of inter-vertebral discs, resulting in blood deficiency in the brain, which manifests in patients sensing “disks” covering their head, and on the drawing this is depicted with “caps” and other additional elements laid on their head. Depiction of shortened extremities, with the use of triangles, reflects the sensation of their feelings of “cold” or “emptiness”). The age of the person carries additional characteristics, reflecting the initial action period of psychogenic factors having influence on the level of activity in the brain.

If it is possible to speak about possible modular influences of the BES syndrome on borderline psychic disorders, then we can mark the following: for a small portion of the patients discussed, the syndrome remains purely a neurological disorder, i.e. a disorder concerning their nervous system, but not psychic. In these cases they only notice a lowering of their capacity for work; the “vague head” together with discomfort in the back (in the case if poor circulation, is evoked by the effect of vertebrogenic factor. This could remain purely a “problem with the spine” (or some other organic problem), if they get a correct explanation from a specialist in right time.

For the majority of other patients the following has importance: hypoxic states of the brain lead to hypnoid states of consciousness. The author needed to correlate the discussed syndrome of dysfunctional circulatory cerebral hypoxia at a young age with the states of vascular genesis in the

older age (of atherosclerotic nature) and, in the presence of some differences, similarities in some part of data of hypnoid states were observed. In both cases the brain works in “hypnotic” mode, or is possibly less ‘nimble’. It is less vigilant and information processing is difficult, “focuses of deadlock excitation” are easily formed. These people are more suggestible (as people in the state chemically induced somnambulance or in the state of alcoholic intoxication, for example) and perceive reality in a “preconceived” way and are easily influenced by endo-psyche charges accumulated within their lifetime.

In many other cases, a ‘burdened’ VIS influence on the general state of a patient’s health leads to such intensification of symptoms that asthenic patients, fearful by nature, become far less assured in themselves and form concrete phobic disorders; patients of an epileptoid nature, even if they are not inclined to experience dysphoria, become extremely gloomy, and people around them seem to behave themselves badly in their eyes; patients of an cycloid nature become easily offended and depressed by troubles in their interpersonal relations; schizoids more easily “audialize” (audial hallucinations) and “visualize” personages in their inner life.

The determination of a “hypoxic” component in the clinical picture of a patient forces one to use a complex approach in their treatment. Into the totality of therapeutic procedures along with traditional anti-neurotic procedures and actions, one can introduce procedures aimed at improving the brain’s energy and blood supply. These can include:

- 1) Manual therapy with such components as stretching, post-isometric muscle relaxation, ligament mobilization, and manipulations around the spinal vertebrae;
- 2) Classical massage, point massage, and acupuncture;
- 3) Pharmacological prescriptions aimed at widening of the ‘glim’ blood vessels (like cinnarizine, vinpocetine (cavinton) and others), or for bettering the rheological quality of the blood and the microcirculation (like aspirin, tiklopidin (tiklid), klopidogrel (plavix), pentoxifillin (trental) & others);
- 4) Forms of nootropic therapy (like ginkgo biloba chemicals (tanakan) & synthetic nootropics) that boost human cognitive abilities and the functions and capacities of the brain. (NB: Typically, nootropics are alleged to work by increasing the brain's supply of neurochemicals [neurotransmitters, enzymes, and hormones], thus improving the brain's oxygen supply and stimulating nerve growth), or other metabolic remedies (cerebrolisin, actovegin and others);
- 5) Antihypoxia therapy that uses various substances that increase the oxygen supply in the blood.

In all cases the author sees it as absolutely necessary to work in close contact with a neurologist, taking into account also the importance of differential diagnostics of the discovered “neurological” state with the aim of exclusion of, in particular, discirculatory encephalopathy (Damulin et al. 2001). It is also obvious that all of this assumes a close collaboration with a manual therapist as well, who is able to consider the possible anomalies of vertebral arteries (like those of unusual origin; high rise or lateral shift of bones and their movements, hypoplasia, pathologic crimpiness, etc.) and anomalies in spinal development (like Klipel-Feil disease, atlas assimilation, platybasia, basilar impression, and other anomalies).

As far as possible, after the initial complex examinations, the procedures that are recommended are those which are aimed at (i) the elimination of pathological impulsations from inter-vertebral discs that seem to play a key role in the pathogenesis of the disorder, and (ii) the neutralization of other factors that result in cerebral hypoxia. If these procedures are successful, other ones from the cited list become supplementary.

A second important link in the process of any given category of patients becomes psychotherapy, aimed at de-neurotization and, thus, at the optimization of brain activity levels and a corresponding decrease of its supply. In this work, the author sees the great advantages of the psychotherapeutic method that he uses, psycho-catalysis, which assists in the redistribution of a sense of “fullness” in the patient’s sense of their organism by forming a regular inner ‘contour’ rather than one with disjointed or disproportionate sections.

Conclusion

The “Unclear Head”, or brain energy-starvation (BES) syndrome, is a widespread disorder found at an early age. This state serves as a background for a great number of borderline psychic disorders and in particular “panic attacks”. Two main factors play a role in its pathogenesis: pathologic impulsations from inter-vertebral discs and stressogenic brain hyperactivity. Symptoms of this kind are very similar to manifestations of astheno-depressive disorders of other natures and are not often identified by psychotherapists or neurologists. Data from the “Constructive Drawing of a Person” test contain patho-gnomonic indications of the presence of this syndrome. Identification of vertebro-genic components in the “Unclear Head” syndrome, as well as the influence of other factors, can lead to hypoxia of the blood supply to the brain, and are very important for formulating an adequate complex ‘prescription’ in the treatment of such psychotherapeutic patients.

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