The freediver`s psychological training.

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Freediving is an extreme sport so it is important to prognosticate the expectancy of the success dipping into the depth. It is necessary for a freediver to calculate his/her strength to do a well-timed turning for an emersion on the surface, to take into consideration various circumstances (current, thermoclin and so on) and to adapt actively to the changing demands of the situation (during the preparation for a diving in the conditions of high waves in the sea instead of the ventilation through a breathing pipe lying on the back or in an apeak position…).

During a diving into the depth with a delay of breathing the whole complex of various psycological and physiological reactions appears which are interconnected. The physiological stress emerging with an objective change of metabolism process during a diving and the sence of empty lungs due to decreasing of the volume in the depth can lead to a panic and loosing the control under the situation.

The purpose of the psycological training is in an advancing adaptation for the future changes of the environment (the increasing of the hydrostatic pressure) and an internal surround of the organism (the development of hypoxia and hypercapnia condition) which demand the slowdown of the metabolic process in the body. Consequently, the condition before a diving should be characterised with a low level of psycophysoilogical tone.

The psycoemotional stress linked with the sence of danger can be regulated by changing of the own position and interpritation of the diving conditions. Instead of the intention to reach the definit level of the depth it

is preferable to orient on the present condition of the organism and it does not matter if the equation of the pressure occurs and the movements are enough relaxed for the prevention of an early proxidity; at appearing of any discomfort feelings a freediver should turn back for an emersion in a good time. The power and weakness of the nervous process, their balance and mobility, the individual resistance to a stress or anxiouty are the factors which contribute in the state of the functional condition. Freedivers with a strong nervous system are disposed to slight the shortenings of the diaphragm which are the signals of an extremal tension of the carbon gas and the low level of the oxygen tension in the blood and they should not display their volitional efforts as the “heroism” in freediving leads to blackout, loosing of the consciousness.

People with the dominance of the efferueseency process over the slowdown process do their actions on the background of vegetative changes in a sympathetic varient; at the same time diving into the depth leads to an increasing of the tone of the parasympathetic nervous system (phenomena of bradicardia); it is especially important for them to reduce the level of psychic tension before the dipping. The ability to a set regulation of vegetative functions is impossible to be done in conditions of the usual consciousness but it is possible to learn to reach the condition of an operative repose before a dipping into the depth. It can be remarked an expressive slowdown of the motor cortex and raised sensibility of the sensor places of cortex. During a dipping the area of a raised activation is shifting in the cortex and the area of the most power impulsation is created in the motor centre.

The success of a low dipping depends directly on the ability to go into a particular consciousness condition just 10 minutes before the start. One of the way to reach the condition of operative repose is a deconcentration of attention (DCA).

The technique of the deconcentration was developed by Oleg Backhtiyarov (Kiev) as an initial level of the psychotechnology control of the psychic condition. The deconcentration of attention is a process of an evenly spreading of the attention in the whole perception area and as the opposed element to the concentration of attention. It is a figure segregation from the environment. Instead of a visual figure from a common ground any sound and tactical stimulus can be given out as a single subject of the conciousness.

As a spontaneous and unconscious process DCA is rarely met. One-directional evolution of the civilisation is coming towards a deeper differentiation and specialisation. In a modern society pecular aims need to be given out which are linked with the concentration of attention, the segregation of various fragments and various subject in the perception field as a particular example is computerisation. DCA is a counterprocess. The stable deconcentrative conditions in definite terms are appeared at the influence of the chronic extremal factors.

The conditions close to DCA are provoked by the attempt to distribute attention in the periphery visual field that is to concentrate the attention overhead, underneath, on the right and on the left. So as to dessiminate the attention area in the whole periphery the volitional effort is demanded as in the visual cortex there is a considarable extend of the representative of the central retina pit which is responsible for the detailed discription of the image, at a relatively tight projection of the peripheral visual area. It is possible to project all the visual perception on the flat transparent front screen and concentrate only on the surface of the screen. The range of spantaneous movements of eyeballs harshly lessens. The attention and look are attracted not to any fragments of the eyesight and it is possible to watch a specific phenomena of the flat deconcentration of attention which serves as an external sign of the exact fulfilment of the method: at turnining of the head the eyes don`t “cling” separate subjects and the immovable posture

relatively the head remains. Under the fulfilment of the deconcentration of attention the desolation of the figures in the field of perception occurs and a specific experience emerges which remind the meditative conditions of the conciosness but without releasing of the reality. It is the condition that is the most preferable before a diving: the minimal consumption of the enegetic resources and the maintaning of the control under the going on facts which are perceived without any emotional reactions and estimations. It is utmost important the emotional reactions go on with the absorptions of the large amount of oxygen. Besides, the emotional estimation of the crutial situation at the depth can slow down the acceptance of decisions and lead to panic acts.

The initial stage of meditation is connected with the mainly deactivation of the left cerebral hemisphere comparatively the right one which is presumably connected with the following process: the meditation "switches off" verbal, logical cognitive functions and the sence of time which are inherent to the left cerebtal hemisphere and instead of it the right cerebral hemisphere begins to dominate which is responsible for the integral perception of the reality. Perhaps, such frequent facts can be explained by "falling in the time" during swimming with a delay of breathing when at the condition of a clear conciousness and perception of the space the time vanishes and a freediver has a feeling of the instantaneous displacement.

At the condition of an empty conciousness or the pause of "internal dialog" emerging at the deconcentration of attention the integration of neuronic activity of various areas of cortex and under the cortex with the aim of a better perception of a significant signal. It allows to react on the changes of the situation rapidly at diving and remain adequate. During a diving the transition into various forms of a physiological activity occurs: a rather intensive work of the first 15 metres in connection with a high positive floatation; then a gradual reduction of the work capacity and from

thirty - forty metres follows a free fall without any muscular activity; and after the turning the intensive paddles for overcoming a negative floatation; from 30 metres the reduction of the intensivity; and the last 15 metres the emertion on the surface is without any movements. For all that a free fall downgoes with a renouncement and a total relaxation which is necessary for an effective aligning of the pressure.

However, the emertion from a big depth demand some other requirementsto a functional condition of the organism. For the overcoming of a negative floatation, from one hand, the movements should be rather powerful and, from other hand, rather relaxing for minimizing of the oxygen consumption becouse of its deficite. In connection with it at the turning moment a freediver should add the third dimentional measurement as an element of the field perception scilicet the distance between him and every object is in the eyesight field.

It is rather difficult to do it at the depth as only water and rope are in front of the eyes but it is possible to feel the thickness of the water layer over the head and under the legs in front of you and behind; one`s position in the space relatively the surface and the bottom of the sea. Flat deconcentration of attention changes into a volumetric one. It can be watched a saltatory raise of phycophysiologic tone and the experience of an intensive inclusion into the invironment at the emersion from the depth. A freediver should scan his condition “pull himself” as sometimes at the emersion a freediver “falls asleep’ owing to the development of the sharp hypoxia a freediver loses his conciousness without any precursory discomfort feelings. It is possible at the inborn or acquired low sensibility to a high content of the carbon gas in the blood owing the adaptation to hipoxia trainings.

One of the main factor of the stimul awareness is its intensiveness. A strong irritant (hypercapnia in this case) always comes through the consciousness. But people with a high threshhold of the hemoreceptor

activation sending impulsation into the resperitory centre the signal about a renewal breath remains unawaked.

In this case, at the necessity of elicitation any weak and secret symptoms of bodily deconcentration of attention with spreading attention in all the organism is rather effective and it allows to feel any vibrations of a bodily background. Deconcentration of attention on acoustic perception is not so much effective in the water but at the preparedness to diving it allows not to concentrate the attention on the referee`s voice at the competitions counting the seconds and to breathe calmly without irritation.

The superposing of audio deconcentration of attention, visual and bodily deconcentration leads to integration of the signsls in the cortex. The intersensoryinteraction in the level of cortex creats the term for forming “the picture of the world” and coordination on the body conduct.

This way occurs a harmonic interaction between a freediver and the invironment and any tiny changes of the organism are fixed as well as the processes of the decision acceptance and the fulfilment are awaked minimally and go with insignificant control in mind in the tempo of the situation demands.