

THE CLINICAL SIGNIFICANCE OF VARIOUS FORMS OF AUTOGENIC ABREACTION

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CLINICAL and experimental observations gathered over the past 35 years have indicated that the physiologic changes occurring during Autogenic Exercises are of a highly complex and differentiated nature, involving autonomic functions which are co-ordinated by diencephalic mechanisms.

The physiologic changes which occur during the exercises coupled with the fact that the regular practice of Autogenic Training over long periods of time has a normalizing influence on a great variety of bodily and mental disorders led to the conclusion that Autogenic Training exerts a therapeutic action on certain mechanisms which are of pathofunctional relevance for many different types of bodily and mental disorders. In summarizing our experimental and clinical findings it was hypothesized (W. Luthe 1957, 1959) that the therapeutic key-factor lies in a self-induced (autogenic) modification of cortico-diencephalic interrelations, which enables natural forces to regain their otherwise restricted capacity for self-regulatory normalization. The hypothesis implies that the function of the entire neuro-humoral axis (cortex, thalamus, reticular system, hypothalamus, hypophysis, adrenals) is directly involved and that the therapeutic mechanism is not unilaterally restricted to either bodily or mental functions.

In accordance with this hypothesis we undertook a systematic study of certain reactions of the central nervous system as they occur during the practice of the Standard Exercises. Our research was stimulated by frequent reports of phenomena of neuromuscular, sensorimotor, autonomic, visual, auditory, and/or psychical nature which seem to have very little or no direct relation with the functional theme of the Standard Formulae.

In addition to the usual feelings of heaviness, warmth, sleepiness, relaxation, etc., there were many instances when trainees noted a variety of other "symptoms." For example, "shooting pain down the spine," "a feeling as if hit on the head," constriction of the chest, onset of tachycardia, a sudden feeling of fear, burning sensations, hearing of voices, noises, or music, sudden visual phenomena such as shadows, lights, or film-like scenes, sexual arousal reactions, crowding-in of thoughts, onset of restlessness, increase of salivation, mus-

cular twitches, involuntary movements, spinning of head, pain in joints and various parts of the body, etc., were experienced. A number of patients who experienced disagreeable phenomena did not want to continue the exercises while others reported that their complaints seemed to bother them more than before; some burst out into crying spells during the exercises and others complained about bothersome nightmares or had a tendency to get so restless during the initial stages of the exercises that they felt they had to stop.

A comparison of this variety of phenomena as they occur during the autogenic state with the discharges observed in epileptic patients or obtained by direct stimulation of cortical areas, as reported by Penfield and Jasper (1954), revealed a striking similarity. This similarity and the clinical evidence that many of the less usual training symptoms appeared to be related to the patients' condition led to the conclusion that the autogenic state facilitates discharges of those parts of the brain which have a need for such a discharge. Hence we called these training phenomena summarily autogenic discharges.

Our data are based on protocols and direct observation of 100 cases (mostly suffering from psychosomatic disorders) during passive concentration on the various heaviness formulae composing the First Standard Exercise. The time of observation varied with the individuals' training progress between 2 and 10 weeks, with an average of 4.5 weeks for the group of 100 patients. The age varied between 13 and 63 with 66 per cent between age 23 and 46.

Our investigation is limited to the frequency of occurrence of 53 different types of autogenic discharges on a group basis and, because of too many intervening variables, does not deal with the frequency of occurrence of each modality in every particular case.

From the data obtained it becomes evident that processes of autogenic discharges are not limited to one particular area of the brain but rather seem to involve discharges from various cortical and subcortical regions.

A variety of *somatosensory* phenomena indicating discharges probably involving the Rolandic sensorimotor strip and/or the second sensory area (supra-Sylvian zone) were reported rather frequently. The most common

sensation was *tingling* or *pins and needles* noted by 76 per cent. *Numbness* was experienced by 41 per cent, *electric-like sensations* by 20 per cent, and *sensations of normal movements*, when actually none were observed, in 9 per cent.

A number of phenomena reminiscent of the effects resulting from stimulation of the Second Somatic Sensory area (supra-Sylvian zone) were reported quite frequently. Thirty-eight trainees reported a feeling of tautness (head, chest, neck, limbs). A feeling of detachment or disappearance of limbs was noted by 21 per cent. Disagreeable feelings such as lameness or "weakness" or "sort of paralyzed" in the limbs occurred in 18 per cent. Other sensations such as "burning" (12%), "itching" (21%), and "swelling" of limbs or the head (17%) were also noted. Fifteen per cent reported disagreeable body sensations without being able to specify their experience. A sudden onset of sharp or dull pain in various bodily areas was reported by 43 trainees.

Different forms of *motor phenomena* resembling patterns of epileptic discharges as seen in lower motor neurone seizures, such as jerks or "jumps" of muscle fasciculi or groups of muscles, twitches and short series of clonic jerks were observed in 55 cases. These autogenic discharges seemed to involve subcortical motor systems rather than the cortex and may indicate the participation of motor nuclei of the midbrain, the pons, and the medulla oblongata or perhaps the spinal cord. Twitching of the eyelids, as observed in 22 trainees, and twitchings of a portion of the face (5%) or muscles of one finger suggest medullary or spinal discharges. More complex movements implying a higher level of integration occurred spontaneously in 16 cases.

A variety of phenomena involving *labyrinthine* and *vestibular responses* have been noted rather frequently. *Vertiginous sensations* such as dizziness, spinning, and turning were noted by 24 per cent; another 17 per cent had the impression that the body was in motion, e.g. rolling sideways, rocking up and down, swinging back and forth. Twenty-one per cent experienced a feeling of displacement of parts of the body and lopsidedness, 15 per cent felt as if they were floating or suspended in the air, while another 10 per cent experienced sensations of sinking or descending. These phenomena of autogenic abreaction appear to be similar to patterns of discharges from certain parts of the temporal or superior parietal cortex.

Thirty-three of our patients reported the sudden onset of *visual phenomena*; 12 per cent described their visual sensations as

colours, lights, and shadow-like shapes which usually were in motion and which are probably due to discharges involving calcarine fissure or other parts of the occipital cortex. Apart from these elementary forms of visual experience other visual phenomena requiring a higher level of integration occurred more frequently; 24 per cent reported *static, picture-like* phenomena and 22 per cent *dynamic film-like scenes*. These are comparable with psychical hallucinations involving temporal or temporoparietal regions.

Auditory sensations were reported by 13 per cent. Simple tones, mostly very high ones (6%) and noises such as "cracking," buzzing, or clicking (5%), may be regarded as related to discharges in the auditory area (Heschl's transverse gyrus). More differentiated and complex auditory phenomena, such as voices (4%) and music (4%), appear to be similar to psychical hallucinations and are probably due to discharges from the temporal lobe or the posterior parietal cortex.

Complementary to the experimental reports on significant changes of blood pressure, heart rate, respiration, skin temperature, etc., there are various subjective observations indicating the involvement of diencephalic mechanisms and other areas of the brain which are closely related to the autonomic functions. Various autonomic responses which seem to be very similar to certain effects induced by stimulation of the Supplementary Motor Area (just anterior to the upper end of the sensorimotor strip on the mesial surface of each hemisphere) have been experienced by many trainees. *Circulatory sensations* (pulsation, sense of flushing, rushing of blood) were reported by 51 per cent, onset of pounding of the heart and palpitation in 21 cases, and cardio-acceleration in 5 per cent. Gastrointestinal sensations, which also may involve discharges from the insula, were observed by 52 trainees. Usually during the Second or Third Exercise there was an onset of borborygmi, noted by 40 per cent. Less frequent was a feeling of pressure in the epigastric area (16%) and a feeling of pressure on the abdomen (4%).

An increase of *salivation*, indicating the possible involvement of its diencephalic representation and/or discharges from the lower part of the Rolandic strip, was observed by 15 per cent. A sudden onset of lachrymation or spontaneous crying spells occurred in 10 trainees. Thirty-five per cent remarked spontaneously that their respiration became slower and easier, while 10 per cent occasionally found that breathing was faster and more difficult than before the exercise.

A number of other symptoms appear to

involve discharges from the temporal lobes. Crowding-in of thoughts and memories was quite disturbing for 59 per cent of trainees, 13 per cent experienced episodes of sudden fear and anxiety without knowing why, and 8 per cent got so restless that they had to discontinue the exercise. More dreams during the heaviness training were noted by 42 per cent, and less frequent dreams by 5 per cent.

From these observations it becomes evident that passive concentration on the First Standard Formula produces changes in the central nervous system which seem to involve the brain as a whole.

The release of various forms of spontaneous discharges during the autogenic state seem to indicate that there exists a natural tendency for a self-regulatory safety mechanism—which enables the brain to discharge nervous impulses from those areas and neural systems which are overloaded or which have a need for discharge because of unknown reasons. We consider our findings as evidence that the autogenic state supports this hypothetical protective and self-regulatory brain mechanism by facilitating spontaneous discharges.

In following up the hypothesis that there exists a "safety-discharge-mechanism" which enables parts of the brain to get rid of an overload of nervous impulses, it was attempted to use autogenic principles to promote the activity of the "safety-discharge-mechanism" more effectively. In other words, the Autogenic Exercises were not terminated in the usual fashion, but, analogous to the principles of the Meditative Training, prolonged, so as to give the brain a better chance to discharge whatever it wanted to discharge. This procedure implies maintenance of a passive and casual attitude of the patient, and in contrast to other related techniques (Caslant, Désoille, Happich, Frederking, Kretschmer, Leuner, Wölberg), a minimum of support, direction, or other interference by the therapist.

When these principles are observed, the brain will take the opportunity to continue or to start to discharge in a similar, however progressively more systematic and organized, way as it does during the conventional Standard Exercises. The autogenic discharges tend to become more and more differentiated and complex. The pattern and the sequence of the discharges may be limited and/or dominated by a certain functional dimension as, for example, pain or visual experiences, or they may involve a combination of various physiological systems (e.g. respiration, cardiovascular, sexual arousal, muscular, autonomic, sensory, visual, auditory, olfactory) simultaneously.

A clinical study of prolonged periods (up

to 3 hours) of autogenic discharges in 100 mostly neurotic and/or psychosomatic patients indicated that the various forms of autogenic discharges are related to the patients' condition and have a releasing and curative effect. Hence we are inclined to consider the autogenic discharges as abreactive processes and call them autogenic abreactions.

The pattern of the autogenic discharges varies with the individual and the specific functional theme predominant in a given discharge. For example, symptom-producing non-experienced pain which originally occurred during a sudden accident will be re-experienced, will progressively subside, and finally disappear together with the symptoms related to it. Emotionally traumatic situations may be reproduced in an unrealistic and more or less distorted manner, will gradually become more realistic, and finally dissolve in a certain fashion, indicating that the abreactive process is terminated. Bodily symptoms related to the discharged material tend to subside gradually or disappear right after a completed abreaction.

Frequently we observed the re-experience of traumatic life situations with spontaneous regressions down to the age of three. In many other instances the brain produced the most fantastic images and situations, which, however, tended to become more realistic as the brain is given an opportunity to keep discharging.

Since the limited time does not permit me to go into further details of technical and other implications of autogenic abreaction, the following statements may give you at least some general information.

A study of about 2000 hours of 100 patients undergoing autogenic abreactions revealed that the various forms of autogenic discharges are related to the patient's condition, his difficulties, and his complaints. As the brain is permitted to discharge, the patient's condition improves, his difficulties and complaints subside, and there results a progressive normalization of personality dynamics and functional disorders.

Apart from the normalizing effect resulting from autogenic abreactions of repressed complexes, conflicts, traumatic incidents, and other tension-producing factors, we were particularly impressed by the improvements we observed after abreactions of unexpected and life-threatening accidents. According to our observations traumatic events involving the cranial region are of particular pathofunctional potency.

In contrast to other techniques (R. Désoille's "Rêve éveillé," E. Kretschmer's "Bildstreifen-denken," C. Happich's "mediative lösende

Bilder," W. Frederking's "Bildern," H. Leuner's "Experimentelles kathartisches Bilderleben," Wolberg's "Hypnoanalysis") which are confined to the induction, direction, and control of mainly visual phenomena, we emphasize that a brain's need for spontaneous discharges is evidently much more complex and that these discharges should unfold with as little interference as possible. When the spontaneous discharges are given correct support, sequences of many different forms of abreaction will start and will go through various phases and terminate without interference by the therapist.

The abreactive processes may be associated with visual experiences, but this is not necessarily so. We observed in many cases that there are various types of autogenic abreactions which are not linked up with visual phenomena.

The application of autogenic principles for the promotion of the activity of a hypothetical self-regulatory discharge mechanism which facilitates discharges from various parts of the brain is considered as a therapeutic extension of Autogenic Training.

INTERNATIONAL CO-ORDINATION OF AUTOGENIC TRAINING

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A PANEL DISCUSSION on the International Co-ordination of the Clinical Application and Teaching of Autogenic Training took place on June 5, 1961, as part of the programme of the Third World Congress of Psychiatry. For a three-hour period representatives of eight countries (*Canada*: W. Luthé; *France*: P. Geissmann; *Great Britain*: A. S. Paterson; *East Germany*: D. Müller-Hegemann; *West Germany*: D. Langen, P. Polzien; *Holland*: B. Stokvis; *Poland*: A. Jus; *U.S.A.*: M. H. Erickson) and members of the audience of about 150 persons discussed problems related to the International Co-ordination of Autogenic Training.

During the first two hours of the meeting the discussion focused on problems of the clinical application of Autogenic Training (see I below). This was followed by an exchange of experience and information related to problems of International Co-ordination of Teaching and Training Standards of Autogenic Training (see Part II). The panel discussion and the recommendations evolving from the meeting (see Part III) may be summarized as follows.

I. DISCUSSION OF PROBLEMS OF CLINICAL APPLICATION

After outlining the scope of the panel discussion (W. Luthé), Dr. M. H. Erickson elaborated on the clinical implications of the differences between Autogenic Training and hypnosis. As the discussion with many stimulating questions from the floor went on, Dr. B. Stokvis reported on 30 years of clinical experience in the field of Autogenic Training at the Leyden State University (Holland). At the Psychosomatic Centre in Leyden, Autogenic

Training is considered an excellent tool for the treatment of patients with psychosomatic and somato-neurotic symptoms, psychosocial diseases (Halliday), organ-neurotic reactions, and conversion hysteria. As in other forms of psychotherapy the application of Autogenic Training is influenced by the personality structure of the patient and the therapist, the nature of the disorder, transference, countertransference, psychosocial, and other environmental factors. At the Centre psychoanalysis is considered the method *par excellence* to study the theoretical background of psychosomatic disorders. However, the best therapeutic results have been obtained with Autogenic Training and certain forms of hypnosis. Autogenic Training was found to be particularly useful in narcissistic patients, and those cases who, on the basis of various deceptions, display an attitude of negativism against medical science and object, in their negative transference, to any type of psychotherapy.

Following a subsequent period of discussion of clinical indication, contraindication, related methods (e.g. "Active Tonus Regulation," "Graduated Active Hypnosis"), therapeutic results, and statistical data, Dr. D. Müller-Hegemann referred to clinical experience with Autogenic Training involving about 2000 patients treated at the Departments of Psychotherapy, Psychiatry, and Neurology of the University of Leipzig. Here Autogenic Training is considered as a very effective and important approach in multidimensional treatment. In combination with other conventional approaches, Autogenic Training was applied to psychopathic disorders, neuroses with psychopathic features, hysterical neuroses, anxiety neuroses and phobias, depressive con-