Kubova, H., Faktorova, M., Mares, P.
Institute of Physiology, Czechoslovak Academy of Sciences, Prague, Czechoslovakia

Koupilova, M., Herink, J., Hrdina, V.
Purkyne Medical Academy, Medical Library, Box T, 50260 Hradec Kralove, Czechoslovakia

Donath, V.
Department of Neurology, Laboratory for Clinical Neurophysiology, Regional Hospital, Bansk Bystrica, Czechoslovakia

Tejkalova, H., Benesova, O., Kristofikova, Z., Binkova, B., Dlohozkova, N., Buresova, M.
Psychiatric Research Institute, Czechoslovak Acad. Sci., Prague, Czechoslovakia

Abstract
Phenoterol, a tocolytic drug widely used in cases of imminent preterm labour for disruption of uterine contractions, was studied for potential harmful impact on the developing fetal brain which is just going through the vulnerable period of accelerated histogenesis and cytodifferentiation. As the developmental stage of human fetus brain in late pregnancy closely resembles the ontogenetic phase of the rat brain in the early postnatal period, the model experiments were carried out using the drug administration in the neonate rat and life-long comprehensive follow-up of sequels in behaviour, reproductive functions and brain biochemical parameters. No deviations were found when phenoterol was administered in the dose 1 mg/kg/day s.c., on the postnatal days 6-9 (clinically relevant dosage). Several minor aberrations were observed after 10 times higher dose (10 mg/kg/day s.c. on postnatal days 5-7) in preweaning period (acceleration of somataic development) and in adulthood i.e. at the age of 2-7 months (higher score of emotionality). The inferiority of phenoterol treated rats became apparent only with the onset of senescence (age 11-14 months) when
lower score of memory acquisition was ascertained joined with an increase of lipid peroxidation in the brain cortex.

Krpalek, P., Blahova, A., Zackova, P.
Comparison of two experimental models of depression
Department of Pharmacology, Faculty of Pharmacy, Charles University, Heyrovskeho 1203, Hradec Kralove 50165, Czechoslovakia

Myslivecek, J., Hassmannova, J., Josifko, M.
Impact of prenatal low-dose diazepam or chlorpromazine on reflex and motor development and inhibitory-learning
Department of Physiology, Medical Faculty of Hygiene, Charles University, Institute of Hygiene and Epidemiology, Praha, Czechoslovakia

Abstract
Long-term behavioral effects of a low dose of diazepam (1 mg/kg body weight) or chlorpromazine (2.5 mg/kg) administered 2-3 times during the last week of pregnancy i.m. were studied in Wistar rats and compared with sequelae of analogously applied saline as well as with normal ontogeny in controls. Inhibitory learning-and-memory ontogeny was assessed by 3 types of passive avoidance (PA) at 3 different life periods: neonatal, 2 months, 4 months. Also were investigated: development of righting, air righting, hanging on a thin horizontal bar, eye-lid opening, somatic development and mortality. Prenatal application of diazepam had adverse effects in all parameters except of eye-lid opening. The reflex and motor development was retarded, and so was body weight. The high mortality in the diazepam treated progeny was due to increased death rate in males. In all PA paradigms investigated no memory was established in rats given diazepam prenatally. Chlorpromazine exhibited a lesser effect. I.m. saline had doubtless a character of prenatal-stress. The impact of diazepam was therefore the result of its proper action and only of a partial, if any, after-effect of prenatal stressful manipulation of the dam.

Langewitz, W., Ruddel, H., Schachinger, H., Lepper, W., Mulder, L.J.M., Veldman, J.H.P., Van Roon, A.
Changes in sympathetic and parasympathetic cardiac activation during mental load: An assessment by spectral analysis of heart rate variability
Department of Medicine, University of Bonn, Bonn, Germany
Kellner, R.
The significance of somatization.

Department of Psychiatry, University of New Mexico School of Medicine, Albuquerque.

Abstract
The following definition of somatization was adopted for purposes of this review. Somatization indicates one or more physical complaints where either appropriate evaluation discovers no organic pathology (or pathophysiological mechanism) or—when there is related organic pathology—the physical complaints or resulting social or occupational impairment is grossly in excess of what would be expected from the physical findings. Conclusions from the main research on somatization are summarized. A large proportion of patients seeking medical care suffer from one of the various forms of somatization. Various etiological factors contribute to somatization and these vary from one person to another. Although there is evidence that treatment is effective, only a small proportion of patients receive appropriate treatment.

Zauner, C.W., Clair, K.M.
Intervention program components.

Department of Exercise and Sport Science, Oregon State University.

Abstract
It is evident that those delivering health promotional services need training not only in the technical aspects of their profession, but in terms of enhancement of their organizational and management skills as well. Tasks associated with testing, data analysis, life style prescription, counselling, education, and safe and effective direction of program functions obviously require a multi-faceted staff. Screening and testing of fitness/wellness program clients is designed to identify those who can safely participate with likelihood of achieving their goals. Data from these procedures are used to formulate exercise and nutritional prescriptions and to serve as motivation. Counselling and educational efforts are aimed at servicing special needs of clients, providing motivation, increasing program visibility in the community and at enhancing program adherence. In view of the fact that fitness/wellness programs affect the health of participants and that certain aspects of these programs are hazardous, well worked-out schemes for providing emergency assistance and for otherwise protecting participants from harm must be in line and well-practiced. This need is enhanced by the fact that fitness/wellness programs and those who are associated with them are legally liable for physiological and mechanical accidents that can be traced to negligence.
On the usefulness of finger blood-pressure measurements for studies on mental workload.

Institute for Experimental and Occupational Psychology, University of Groningen, University of Bonn.

Abstract
Two experiments were conducted to explore the usefulness of the Penaz method for non-invasive, continuous finger blood pressure measurements during mental stress testing. In the first study, blood pressure was measured with the Penaz method, in the second it was measured intra-arterially. Two different subject groups were used. In both experiments the same mental task, a memory search and counting task, was used. Experimental effects, consisting of rest-task differences in heart rate and blood pressure, its (spectral) variability and the coherence between fluctuations in the two signals (e.g. baroreflex sensitivity) are compared for the two measuring methods. Experimental effects on mean pressure values, spectral variability measures and baroreflex sensitivity are similar for the two types of measurement. Effects on mean pressure are smaller in the finger pressure indices. It is concluded that the Penaz instrument can provide us with a useful method for studying cardiovascular reactivity in mental stress research.

Gavrilenko, T., Gatev, P., Gantchev, G.N., Popivanov, D.
Somatosensory evoked potentials during standing posture on different support surface.

Institute of Physiology, Bulgarian Academy of Sciences.

Abstract
Somatosensory evoked potentials in response to stimulation of the posterior tibial nerve at the ankle were recorded during standing on stable ground or on unstable support surface (seesaw) or on support surface short in relation to foot length. During standing on the seesaw and on the short support surface a decrease in the amplitude of the early component (N32-P39) was observed. The amplitude of N49-P58 decreased during standing on the short support surface. The amplitude of the later components (N49-P58; P58-N76; N76-P117) decreased during standing on the seesaw in comparison to that during standing on the stable ground and on the short support surface. Thus, the attenuation of the cerebral potential during standing depend on the conditions for maintenance of posture.

Kukleta, M.
Psychophysiological mechanisms in hypochondriasis.
Abstract
The paper has analysed hypochondriasis in terms of defence behaviour. The study sample consisted of 39 treated neurotics who felt themselves menaced by a serious disease which was not confirmed by appropriate medical examination and who came to the therapist with anxious states. Specific defence acts induced by hypochondriacal threat, stimuli inducing the states of threat and mechanisms responsible for formation and maintenance of their capability for inducing emotion were found in every patient. The results demonstrated that many manifestations of hypochondriasis considered generally as psychopathological symptoms were in fact meaningful defence responses against a threat which the patient believed existed.

Pacák, K., Nedvídková, J., Horváth, M.
Receptor equipment of adenohypophysis: membrane receptors and their role in adenohypophyseal hormone secretion.

IIIrd Department of Medicine, Medical Faculty, Charles University, Prague, Czechoslovakia.

Paclt, I., Tomásová, H.
Activity of alkaline phosphatase and bone isoenzyme during lithium treatment of schizophrenia and manic-depressive psychosis in children.

Dept. of Psychiatry, School of Pediatry, Charles University, Prague.

Pacák, K., Nedvídková, J., Horváth, M.
Role of adrenergic receptors in the endocrine hypothalamus.

IIIrd Department of Medicine, Medical Faculty, Charles University, Prague, Czechoslovakia.
HOMEOSTASIS in Health and Disease, 1991, 33(1-6)

JOURNAL CONTENT PLUS ABSTRACTS

Radil, T., Damjanović, I., Konjević, D., Kovacević, N., Rakić, L.
Slow potential shifts to light on and off in the retina of the marine fish Serranus scriba.

Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

Zikmund, V.
Cycles in optokinetic nystagmus at high velocities of the optokinetic stimuli motion.


Rakić, L., Kovacević, N., Radil, T.
Alimentary learning in the marine fish Serranus scriba influenced by circadian rhythmicity.

Department of Marine Biology, Kotor.

Stancák Jr., A., Kuna, M., Srinivasan, Vishnudevananda, S., Dostálek, C.
Kapalabhati—yogic cleansing exercise. I. Cardiovascular and respiratory changes.

Institute of Physiological Regulations, Czechoslovak Academy of Sciences, Praha.

Abstract
We studied cardiovascular and respiratory changes during yogic breathing exercise kapalabhāti (KB) in 17 advanced yoga practitioners. The exercise consisted in fast shallow abdominal respiratory movements at about 2 Hz frequency. Blood pressure, ECG and respiration were recorded continuously during three 5 min periods of KB and during pre- and post-KB resting periods. The beat-to-beat series of systolic blood pressure (SBP) and diastolic blood pressure (DBP), R-R intervals and respiration were analysed by spectral analysis of time series. The mean absolute power was calculated in three frequency bands—band of spontaneous respiration, band of 0.1 Hz rhythm and the low-frequency band greater than 15 s in all spectra. The mean modulus calculated between SBP and R-R intervals was used as a parameter of baroreceptor-cardiac reflex sensitivity (BRS). Heart rate increased by 9 beats per min during KB. SBP and DBP increased during KB by 15 and 6 mmHg respectively. All frequency bands of R-R interval variability were reduced in KB. Also the BRS parameter was reduced in KB. The
amplitude of the high-frequency oscillations in SBP and DBP increased during KB. The low-frequency blood pressure oscillations were increased after KB. The results point to decreased cardiac vagal tone during KB which was due to changes in respiratory pattern and due to decreased sensitivity of arterial baroreflex. Decreased respiratory rate and increased SBP and low-frequency blood pressure oscillations after KB suggest a differentiated pattern of vegetative activation and inhibition associated with KB exercise.

Franková, S.
Ontogeny of alternation learning in pups of laboratory rats.
Inst. of Physiology, CSAV, Prague, CSFR.

Hájek, P., Radil, T., Jakoubek, B.
Hypnotic skin analgesy in healthy individuals and patients with atopic eczema.
Medical Policlinic, Litoměrice.

Nikolov, N.D., Aladjov, M.
System organization of peak frequencies and level of mean coherence in human EEG following interoceptive influence (hyperventilation).
Brain Research Institute, Bulgarian Acad. Sci., Sofia.

Kukleta, M.
Emotional significance of threat stimuli in neurotics is the result of various processes.
Patchev, V., Felszeghy, K., Korányi, L.

Neuroendocrine and neurochemical consequences of long-term sleep deprivation in rats: similarities to some features of depression.


Brain Research Institute, Bulgarian Academy of Sciences, Sofia.

Abstract

The paradigm of long-term sleep deprivation was used as a model of chronic inescapable stress in rats. Several basic metabolic parameters (body weight changes, food and water intake, rectal temperature, serum glucose and creatinine), adrenal and thyroid secretion, norepinephrine and dopamine content and turnover in discrete brain regions, and open field behaviour were examined in the course of the exposure to experimental stress. Sleep deprivation over 7-9 days caused complete physical exhaustion of the animals. It was accompanied by hypothermia and hyperphagia. Adrenal activity was characterized by significant hypercorticism, but also by a relative decrease of the responsiveness to ACTH. A gradual decrease in the thyroid secretion was observed. Sleep deprivation elicited a depletion of norepinephrine in the hypothalamus and decreased its turnover, whereas hippocampal norepinephrine content decreased without considerable turnover alterations. Striatal dopamine content and turnover remained unaffected. Behavioural depression and altered open field activity were also observed in exhausted animals. Long-term sleep deprivation, therefore, seems to reproduce some of the biological correlates of the depressive illness, and may be useful in studying the development of coping failure as a result of chronic stress exposure.

Podivinsky, F., Jergelova, M.

Interference phenomena in relation to somatosensory evoked potentials and long latency reflex responses.


Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava, Czechoslovakia.

Radilová, J., Kovacević, N., Rakić, L., Radil, T.

Circadian differences in aggressive behavior of sea fish Serranus scriba.


Laboratory of Evolutionary Biology, Czechoslovak Academy of Sciences, Prague.
Kovacević, N., Rakić, L., Radil, T.
Avoidance learning in the marine fish Serranus scriba influenced by circadian rhythmicity.
Department of Marine Biology, Kotor.

Heim, N., Lester, D.
A study of different types of suicide notes.
Freie Universitat Berlin.

Abstract
A study of suicide notes in West Berlin revealed that those leaving instructions in their notes were younger, more often Catholic and having problems with work, loneliness and addiction. Those including wills and testaments were older, more likely to be female and widowed/divorced, and more likely to have recently experienced the death of a partner.

Golda, V.
Working memory (recognition of conspecific identity) in the genetically hypertensive rats of Koletsky type and in the rats of Wistar strain.
Inst. Exper. Neurosurgery, Hradec, Královo, CSFR.

Jagla, F.
Topographical aspects of saccadic eye movement related potentials.
Institute of Normal and Pathological Physiology, Slovak Academy of Sciences, Bratislava.

Jágr, J.
Two ways of integrating the time factor in complex motor patterns.
Homeostasis in Health and Disease, 1991, 33(1-6)

Journal Content Plus Abstracts


Dept. Neurol., Faculty hospital, Bratislava, CSFR.


Radilová, J., Kovacević, N.
The influence of color illumination on the aggressivity of teleost fish Serranus scriba.


Laboratory of Evolutionary Biology, Czechoslovak Academy of Sciences, Prague.

Cepický, P., Pecená, M., Cepická, B., Jarolímek, M., Ferenc, R.
Hypnocontraception effectivity tested.


Institute for the Care of Mother and Child, Prague, Czechoslovakia.

Abstract
The effectivity of hypnocontraception was tested in 23 women selected as the most suitable ones from 86 registered interested women. The method was based on experience of the Milanese authors, especially Professor Marchesan. The hypnocontraception was performed in eight sessions, the temporary sterility was suggested for six months with a possibility of prolongation for another six months. In the course of the study 14 out of the 23 treated women became pregnant, seven of them in the course of the first two months and twelve of them in the course of the first six months. The remaining 9 women did not get pregnant. Out of them six terminated the hypnocontraception after six months, one after 12 months and four continue up to now (7-22 months). Consequently, the effectivity of the procedure applied in this study has been shown as not sufficient to recommend its introduction as a current means of contraception in the general population.

Lapka, R.

Modelling of the penetration rate of alaptide through the hematoencephalic membrane

Radil, T., Mates, J., Pöppel, E.
Rhythm extrapolation in tapping.
Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

Vondrickova, R., Kubova, H., Velisek, L., Mares, P.

Pástorová, B., Várady, J., Kozácková, M.
Department of Physiology, University of Veterinary Medicine, Kosice.

Abstract
The effect of hormonal stimulation on catecholamine levels and activity of its degradation enzyme monoaminoxidase in the hypophysis of ewes in the estric period was studied by the radioenzymatic method. The estrus of ewes was synchronised with Agelin sponges (Agelin, Spofa) containing 20 ug chlorosuperlutin. After completed synchronisation we induced superovulation in the experimental group by means of 2000 IU serum gonadotropin. Catecholamines were determined radioenzymatically using the Catechola test. Monoaminoxidase activity was determined radiochemically. The results indicate that hormonal serum gonadotropin stimulation increases significantly (P < 0.01) pituitary dopamine and epinephrine levels in ewes. In comparison with the control group norepinephrine concentration did not change in this tissue. MAO activity in the hypophysis decreased significantly to almost one half in comparison to control values (P < 0.001). According to our results serum gonadotropin in combination with hyperestrogenisation influences selectively dopamine and norepinephrine metabolism in the hypophysis of hormonally stimulated ewes and reduces monoaminoxidase activity.

Tikal, K.
Andel, J., Cipra, T., Tomásek, L., Formánek, J., Kuhát, J., Dvorák, J.
A comparison of methods for estimating spectral power densities of EEG signals.

Dept. of Statistics, Faculty of Mathematics and Physics, Charles University, Prague.

Abstract
The paper suggests an objective method for the choice of a suitable estimate of the spectral power density in the context of the analysis of biosignals. The method is based on the principle evaluating the degree of prewhitening (i.e. elimination of autocorrelation): this prewhitening is achieved just by means of filters exploiting the compared spectral estimates. The method is demonstrated by a practical example estimating the spectral power density of EEG signals.

Deschaumes-Molinaro, C., Dittmar, A., Sicard, G., Vernet-Maury, E.
Results from six autonomic nervous system responses confirm “autonomic response specificity” hypothesis.

Laboratoire de Physiologie Neurosensorielle, CNRS, Université Claude Bernard, Lyon.

Abstract
The Autonomic Nervous System (ANS) specificity concept corresponds, according to Lacey, to the preferential reaction on the part of the same subject along a determined ANS channel. Six channels: skin potential, resistance, blood flow, temperature, and instantaneous heart and respiratory frequencies were recorded simultaneously in 33 subjects submitted to a verbal association test likely to arouse different kinds of emotions, and to mental arithmetic. Studies of these six parameters in relation to mean response, and principal component analysis made it possible to bring the individual response to the fore via ANS preferential channels, and thus to confirm Lacey’s hypothesis, while adding further evidence as corollaries.

Makal, V., Kubova, H., Mares, P.
Effect of clonazepam on cortical epileptic afterdischarges in developing rats

Sklenovský, A., Navrátil, J., Dostálová, K., Chmela, Z.
Protective effect of nadrolone (nortestosterone) on stress enhancement of
nonesterified fatty acids in central nervous system.
(1991) *Homeostasis in health and disease : international journal devoted to integrative
brain functions and homeostatic systems*, 33 (5-6), pp. 296-297.

Rektor, I., Svejdova, M.
Cholinergic system disturbance in the startle reaction in patients with early brain
damage

Herink, J., Koupilova, M., Baigar, J.
Effect of triazolam in convulsions induced by pentylenetetrazol

Rektor, I., Svejdova, M., Silva-Barrat, C., Barthuel, P., Menini, C.
Effect of drugs influencing the noradrenergic neurotransmission on nonepileptic
myoclonus of Papio Papio baboon

Drtílková, I., Misurec, J., Balastiková, B.
Therapeutic effect of amphetamine on enuresis nocturna primaria in children with
hyperkinetic syndrome.
(1991) *Homeostasis in health and disease : international journal devoted to integrative
brain functions and homeostatic systems*, 33 (5-6), p. 288.

Psychiatric Clinic, Jihlavská 100, 639 02 Brno, CSFR.
Maras, L., Palejev, G., Radii, T.
Interaction between the auditory evoked response and EEG alpha activity during a cognitive task.
Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

Shabanov, P.D., Chemeris, T.I., Yaichnikov, I.K.
Passive avoidance response in conditions of cold environment.
Institute for Experimental Medicine, USSR Academy of Medical Sciences, Leningrad.

Bohdanecký, Z., Dimitrov, G., Gourevitch, A., Mateeff, S.
The effect of speed and type of visual stimulus on its perception.
Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

Sulcova, A.
Calcium channel blocker verapamil antagonizes anxiolytic effect of diazepam in mice

Hassmannova, J., Myslivecek, J., Roth, Z.
EEG characteristics after prenatal application of diazepam in rats

Hamon, J.F., Camara, P.
Combined effects of methanol and ethanol on event-related potentials in non alcohol dependent men.
Université de Nice, Sophia Antipolis Laboratoire de Psychologie Expérimentale et Comparée, d'Abidjan.

Abstract
The effects of consumption of the beverage got by distillation of Elaeis quineensis on brain functions were investigated in ten healthy, non-alcoholic men. Each subject ingested 979 mg ethanol and 21 mg methanol/kg body weight. N1, P2 and P3 components of the event-related potentials (ERP’s) were recorded during a go/no go task before, 60 and 240 min. after alcohol ingestion. Subjects were presented paired auditory stimuli—standard (60%) and target stimuli in a random order and were asked to detect and signal the target unconditional stimulus by pressing a push button. In the trials 60 min. after alcohol P3 was smaller than control, both N1 and P2 were flatter 240 min. after dosing, whereas P3 amplitude was not changed then. The results are consistent with ERP’s changes in chronic alcoholics and suggest that a low dose of methyl alcohol may increase ethanol effects in non alcohol-dependent man.

Svestka, J., Rysánek, R., Cesková, E.
Treatment of endogenous depressions with valpromide (open study).

University Psychiat, Dept, Brno-Bohunice, CSFR.

Nikolov, N., Patchev, V., Kisselkova, E., Harleva, S.
Late after-effects of hyperventilation or breathing exercises on cognitive functions.

Brain Research Institute, Bulgarian Academy of Sciences Sofia.

Svejdova, M., Rektor, I.
Tacrine derivative in the myoclonus B of Papio Papio baboons

Rotenberg, V.S.
The competition between SWS and REM sleep as index of maladaptation to shift work.
Abarbanel Mental Medical Center, Israel.

Abstract
Polysomnographic and questionnaire investigation was performed in 22 train dispatchers and in 15 employees of post transportation during one work-rest cycle. In the group of subjects well adapted to the shift work, the slow-wave-sleep reached its peak duration in the day sleep and in the first recovery night, while REM rebound took place only on the second night. In maladapted subjects, REM sleep prevailed in the day sleep as well as in the first recovery night. The alteration of sleep structure can be thus used as a sign of adaptation vs maladaptation to shift work. Sleep structure of the recovery day sleep after single night sleep deprivation may be used as a prediction of adaptation to the shift work.

Navratil, J., Sklenovsky, A., Chmela, Z., Rypka, M.
Increase of nonesterified fatty acids in CNS after physostigmine application

Nyman, G., Laurinen, P., Radil, T.
To spatial phase detection in humans.

Department of Psychology, Helsinki University.

Zbytovský, J.
Longterm maintenance therapy with depot haloperidol in schizophrenia.

Dept. Psychiatry, 500 36 Hradec Králové, CSFR.

Benesova, O., Kristofikova, Z., Tejkalova, H.
Experimental study of long-term administration of cholinesterase inhibitors in aging rats
Velisek, L., Mares, P.
The action of clonazepam against seizures induced by N-methyl-D-aspartate in rats during ontogenesis

Cesková, E., Svestka, J., Obrovská, V., Rysánek, R., Náhunek, K.
Alternative therapeutic approaches to the treatment of acute phases of endogenous psychoses.
University Psychiatric Dep, Brno-Bohunice, CS.

Patocka, J., Fusek, J.
Tacrine in Alzheimer’s disease

Kubova, H., Mares, P.
Anticonvulsant effects of benzodiazepine Ro 16-6028 during ontogenesis in the rat

Tikal, K.
Diazepam does not shorten tonic immobility in mice: an exception from fear induced inhibitory response?
Pharmacologic Institute of 3rd Medical Faculty of Charles University, Praha.

Mrowiec, J., Plech, A., Brus, R.
Effect of cholinomimetics and cholinolytics in a despair test in mice
Myslivecek, J., Hassmannová, J.
Does neonatal learning influence later learning?
Institute of Pathophysiology, Medical Faculty, Plzen, Czechoslovakia.

David, I., Albrecht, V., Lestina, J.
Influence of ethanol on EEG: a plasma level-response study.
I D, Center Psychiat, Prague, CSFR.

Radilová, J., Pöppel, E.
Further analysis on timing of figure reversal in two--and three--dimensional cognitive space.
Laboratory of Evolotional Biology, Czechoslovak Academy of Sciences, Prague.

Kocur, J., Rydzynski, Z., Duszyk, S., Gruszczynski, W., Trendak, W.
Fluoxetine (prozac) in depression of adults.
Inst. Mental Hygiene, Military Med. Acad., Lódz, Poland.

Golda, V.
Diazepam alleviates phase advance of circadian rhythm of activity in the genetically hypertensive non-obese rats of Koletsky type

Indra, M., Bohdanecký, Z., Radil, T.
One-dimensional tracking and corresponding changes in hemispheric asymmetry.
Pánková, R.

Autonomic reactivity in psoriatics sensitive and insensitive to psychological stress.

1st Clinic of Dermatology, 1st Medical Faculty, Charles University, Prague.

Lester, D.

Do suicide prevention centers prevent suicide?

Center for the Study of Suicide, Blackwood, New Jersey 08012.

Abstract
States with a higher concentration of suicide prevention centers in 1970 had higher suicide rates in 1970 but experienced less of an increase in the suicide rates during the next decade. The results of this study, therefore, provide some support for the beneficial impact of suicide prevention centers on the communities that they serve.

Koupilová, M., Herink, J., Baigár, J.

The effect of sublethal doses of cholinesterase inhibitors on spontaneous motor activity in laboratory rats.

Purkyne Medical Academy, Medical Library, Hradec Králové, CSFR.

Hlinák, Z., Krejčí, I.

Modulation of social memory in rats by alaptide, a derivative of MIF.

Research Institute for Pharmacy and Biochemistry, Prague, Czechoslovakia.
Abstract

The effect of alaptide, a synthetic derivative of the hypothalamic MIF, upon social memory of intact adult males (Experiment 1), castrated males (Experiment 2), ovariectomized females (Experiment 3) and aged females (Experiment 4) in rats was studied. Social investigation oriented toward a juvenile male (22-24 days old) was used as the measure of social recognition. In addition, sniffing behaviour by adult animals was evaluated during the exposure. Alaptide at the dose of 1.0 mg/kg, and 0.5 mg (Experiment 1), was injected sc immediately after the initial exposure. Reexposure of animals to the same or a novel juvenile was performed 120 min later. Time spent in social investigation by alaptide-treated intact males as well as by ovariectomized females was significantly reduced upon reexposure to the same juvenile. This reflects memory specific effect of alaptide, i.e., the animal is able to recognize individual olfactory characteristics of the juvenile. On the contrary, alaptide was ineffective in enhancing social recognition in castrated males and in aged females. Because the alaptide-treated animals spent less time in social investigation if reexposed both to the same and to a novel juvenile, the finding is considered as reflecting a non-specific effect. The results are discussed from a point of view of the importance of androgens or estrogens in the modulation of social recognition and of a male's or female's capacity to process and to retain olfactory information under the influence of alaptide. With the exception of intact adult males, all tested animals devoted less time to sniffing behaviour during reexposure so that habituation to the experimental environment took place in them. Thus, social investigatory behaviour and sniffing behaviour seem to be two different behavioural systems with different neurobiological mechanisms.

Hanus, H., Tůtma, I., Zapletálek, M., Fusek, J., Hrdina, V.


Dept. Psychiat., CS-500 36 Hradec Králové, CSFR.

Pöppel, E., Radil, T., Mates, J.


Institute of Medical Psychology LMU Munich.

Radil, T., Bohdanecký, Z., Vorlícek, J.

Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

Mares, P., Kubova, H.

Jirsa, R., Radil, T.

Institute of Physiology, Czechoslovak Academy of Sciences, Prague.

Klepp, K.I., Matthiesen, S.B., Ulvik, R.J., Aaro, L.E.

Research Center for Health Promotion, University of Bergen, Norway.

Abstract
As part of a Norwegian campaign to reduce serum cholesterol levels, the general public of the City of Bergen was invited to participate in cholesterol testing in October 1988. Participants received the results of the cholesterol screening and nutritional information from trained health personnel. In order to evaluate selected aspects of the campaign, a short questionnaire was mailed to all 354 participants 1-2 weeks after the initial cholesterol screening, and then again one year later. Participation-rate exceeded 90% at both surveys. Demographic variables and cholesterol levels were obtained at baseline, whereas participants’ perceptions and reactions to the campaign, as well as their intentions to change eating patterns were assessed both in 1988 and in 1989. In addition, whether or not participants had had their cholesterol remeasured during the past 12 months (and if so, the result) as well as implemented dietary changes were assessed in October 1989. Results from this study showed that cholesterol screening was perceived very positively by the participants, that participants with a high baseline cholesterol level reported that they intended to make dietary changes, and that they, one year later, reported to have implemented a number of health enhancing dietary changes. A smaller, but substantial proportion of the population did, however, report becoming alarmed when receiving the test results. Subjects who did not experience a reduction in cholesterol level over the next year remained alarmed. Thus, cholesterol screening has the potential of creating fear concern and should, for this reason, be
conducted by trained health personnel only, and accompanied by appropriate counselling.

Schwarzberg, H., Roth, N., Hiller, K.
Effect of perinatal dexamethasone treatment on conditioned taste aversion in rats.

Institute of Physiology, Medical Academy, Magdeburg, FRG.

Abstract
Effect of perinatal dexamethasone at the age of seven days. One hundred days after the treatment, conditioned taste aversion was determined in the adult animals. Perinatally applied dexamethasone did not affect water consumption but caused a significant attenuation of conditioned taste aversion. These findings may be explained by dexamethasone effects upon brain development which cause impairment of memory functions or, alternatively, decreased responsiveness to aversive stimuli.

Stancák Jr., A., Kuna, M., Srinivasan, Dostálek, C., Vishnudevananda, S.
Kapalabhati—yogic cleansing exercise. II. EEG topography analysis.

Institute of Physiological Regulations, Czechoslovak Academy of Sciences, Praha.

Abstract
Topography of brain electrical activity was studied in 11 advanced yoga practitioners during yogic high-frequency breathing kapalabhati (KB). Alpha activity was increased during the initial five min of KB. Theta activity mostly in the occipital region was increased during later stages of 15 min KB compared to the pre-exercise period. Beta 1 activity increased during the first 10 min of KB in occipital and to a lesser degree in parietal regions. Alpha and beta 1 activity decreased and theta activity was maintained on the level of the initial resting period after KB. The score of General Deactivation factor from Activation Deactivation Adjective Checklist was higher after KB exercise than before the exercise. The results suggest a relative increase of slower EEG frequencies and relaxation on a subjective level as the after effect of KB exercise.

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