

given in vivo selectively inhibits for 10-60 min a nucleoplasmic type of RNA polymerase in rat liver but the synthesis in vivo of all species of liver RNA remains blocked for several hours.--J. P. L.

3 BROOKS, ROBERT D. JR. and JAMES A. VICK. (Dep. Pharmacol., Walter Reed Army Inst. Res., Walter Reed Army Med. Cent., Washington, D. C. 20012, USA.) Toxicological studies of bee venom in mice, dogs and monkeys. *AM BEE J* 112(7): 250-251, 1972.--Venom of *Apis mellifera* was injected, either i.v. or s.c., into experimental animals. I.V. injections caused a precipitous decrease in blood pressure within 35 sec in both dogs and monkeys. It also decreased heart rate and depressed respiration. Dosages of 5 mg/kg in dogs, or 2.5 mg/kg in monkeys, i.v., caused death from cardiovascular failure. Similar responses were noted after s.c. injections, but median lethal dosages were higher: 200 mg/kg in dogs and 50 mg/kg in monkeys. The former is equivalent to about 2000 bee stings. Smaller dosages were fatal to mice. Other physiological reactions are noted.

--J. D. Hitchcock.

34772. ULANOVA, I. P., A. I. KHALEPO and A. I. EITINGON. (Inst. Ind. Hyg. Occup. Dis., Acad. Med. Sci. USSR, Moscow, USSR.) Issledovanie kumulyativnykh svoystv khimicheskikh soedinenii na porogovom urovne kak osnovu prognozirovaniya khronicheskikh intoksikatsii. [Study into cumulative properties of chemical compounds at the threshold level as a basis for prognostication of chronic poisonings.] *GIG TR PROF ZABOL* 16(3): 36-39, 1972. [Engl. summ.]--Cumulative properties of chemical compounds at the threshold of their acute action were analyzed. Cumulation coefficients were deduced from the integral test changes and with reference to the summary-threshold value featuring the functional state of the nervous system. These coefficients proved to be much inferior to coefficients of cumulation determined with reference to the animal lethality figures. The cumulation coefficients at the threshold level supported a well-marked cumulative capacity of benzene, carbon tetrachloride, *m*-aminobenzotrifluoride and morpholine. This was supported by the data derived from chronic experiments, considering CCl_4 and benzene, also by the available clinical and hygienic observations. The estimated coefficient of correlation between the areas of chronic action and coefficients of cumulation for the substances under study at the threshold level was 0.99. This makes it possible to forecast possible developments of chronic poisoning. The investigation time was cut down to a maximum of 1 mo.--J. P. K.

34773. KOBULIYA, N. S., L. E. GEDYMIN, F. R.

YAKHOVSKII and O. P. ARKHPOVA. (Cent. Res. Inst. Tuberc., Min. Health USSR, Moscow, USSR.) Izucheniye pronitsaemosti gisto-gematicheskikh bar'erov pri razlichnykh rezhimakh giperbaricheskoi oksigenatsii v eksperimente. [Permeability of histo-haematic barriers in different regimes of experimental hyperbaric oxygenation.] *EKSP KHIR ANESTEZIOL* 17(2): 31-33, illus. 1972. [Engl. summ.]--Experimentally, 70 guinea pigs were subjected to 100% O_2 in therapeutic (1-2 up to 3 ata) and toxic (4-5 ata) regimes of hyperbaric oxygenation for 1-4 hr. Histology and radioactive indication (with streptomycin- S^{35} in 20,000 U/kg and with 14.2 μCi activity in 1 ml) were used to assess various permeability levels in the histo-haematic barriers of the lungs, liver, kidneys, spleen, myocardium and brain. Toxic regimes were accompanied by a universal increase of vascular walls permeability, conditioned by structural lesions of the histo-haematic barriers. With therapeutic regimes, vascular permeability rose only in the spleen, liver and kidneys, i.e., in the organs with an increasing functional activity under hyperbaric oxygenation, and was not accompanied by histo-structural changes of the main elements of the histo-haematic barrier.

--J. L. S.

34774. CONDER, D. W., P. C. OLOFFS and Y. S. SZETO. (Pestol. Cent., Dep. Biol. Sci., Simon Fraser Univ., Burnaby 2, B. C., Can.) GLC separation of heptachlor epoxide oxychlordane, α - and γ -chlordane. *BULL ENVIRON CONTAM TOXICOL* 7(1): 33-35, 1972.--GLC [gas liquid chromatography] columns were used to identify and quantitate organochloride pesticide residues. Such as 3% OV 1, 2% SE 30 plus 6% OV 1, or 2% OV 1 plus 6% OV 210. They did not satisfactorily separate the compounds of α -chlordane, γ -chlordane oxychlordane and heptachlor epoxide. Gas chromatograph Micro Tck MT 220 with N1-63 electron capture detector method was employed in this experiment.

--J. P. K.

34775. WALTSCHEWA, W. (Forschungsinst. Arbeitsschutz, Berufsk., Blvd. Petko Napshev 34, Sofia, Bulg.), M. SLATEWA and I. MICHAÏLOV. Hodenveränderungen bei weissen Ratten durch chronische Verabreichung von Nickelsulfat. [Testicular changes due to long-term administration of nickel sulfate in rats.] *EXP PATHOL (JENA)* 23(4): 116-120, illus. 1972. [Engl. summ.]--Following long-term sulfate intoxication in rats, severe lesions in the germ cells clearly in spermiogenesis could be demonstrated. Very few changes observed in the livers and kidneys. Nickel sulfate had a selective effect on testicular parenchyma.--A. B. M.

34776. BASALAEV, A. V., A. N. VAZIN and A. G. KOCHETKOV. (S. M. Kirov Gork. Med. Inst., Gorki, USSR.) K patogenesu izmenenii, voskayushchikh pri dlitel'nom vvedenii viniikhlorda. [Pathogenesis

of changes developing due to long-term exposure to the effect of vinyl chloride.] *GIG TR PROF ZABOL* 16(2): 24-27, illus. 1972. [Engl. summ.]--Rabbits and rats which inhaled vinylchloride fumes in a maximal permissible concentration (0.03-0.04 mg/l), underwent a 6-mo. long all-round examination by physiological, biochemical, histomorphological and roentgenodensitometric methods. Changes in the bioelectric activity of the hypothalamus, hyperadrenalinemia and functional troubles of the cardiovascular system were disclosed. Development of resorptive manifestations in the bone tissue was brought out morphologically and osteoporosis--roentgenologically. An inference is drawn as to a key importance of hypothalamic dysfunction in the pathogenesis of the disease, this dysfunction giving rise to neurohumoral and neurovascular troubles leading to the development of dystrophic processes in the bone tissue.--P. L. W.

34777. BAZIN, SUZANNE and ALBERT DELAUNAY. (CNRS, Inst. Pasteur, Serv. Pathol. Exp., 92-Garches, Fr.) Action exercée par des substances lathyrogènes sur le collagène de granulomes. [Action exercée par lathyrogéniques substances on the collagen of granulomas.] *CR HEBD SEANCES ACAD SCI SER D SCI NAT (PARIS)* 274(4): 618-620, 1972.--Polyvinyl sponges were implanted s.c. in Wistar rats. Ten days later, penicillamine was given orally in a dose of 20 mg/100 g of weight. In another group, β -mercaptoethylamine was given in a dose of 0.5 mg/100 g, i.p. Granulomatous tissue surrounding the sponges and normal skin were extracted to give neutral and acid soluble collagen, collagen labile at 60° and insoluble collagen. Both drugs gave comparable results. They did not modify the total collagen of normal skin, but decreased the collagen of granulomatous tissue slightly. Neutral soluble collagen was increased and insoluble collagen decreased in both types of tissue. The labile collagen increased in the granuloma and diminished in the skin. The acid soluble collagen increased 200% in the granuloma and 30% in the skin. Inter-molecular bonds in collagen which are sensitive to lathyrogens are comparable in granuloma and in normal skin.--M. D. S.

34778. KUDZINA, G. D. and D. I. GOLOVAN'. (A. N. Marzeeva Kiev Res. Inst. Gen. Public Hyg., Kiev, USSR.) Travnitel'naya otsenka gerbitsidov gruppy khlorbenzoinoi kisloty santarno-toksikologicheskimi metodami i metodami kul'tur kletok. [Comparative sanitary-toxicological and cell-culture evaluation of the chlorbenzoic acid herbicide group.] *VRACH DELO* 1: 125-128, illus. 1972. [Engl. summ.]--Data of chronic sanitary-toxicological experiment on rabbits and a study of the effect of chlorbenzoic herbicide group indicate that the results by these 2 methods concerning the toxicity of the herbicides coincided. The use of cell-culture method for rapid hygienic evaluation of the toxicity of some herbicides is promising and further investigations of this method are justified.--P. L. W.

34779. COOPER, PHILIP and STEPHEN H. TOLINS. (Dep. Surg., Bronx Veterans Admin. Hosp., Bronx, N. Y. 10463, USA.) Relationship between smoking history and complications immediately following surgery for duodenal ulcer. *MT SINAI J MED* 39(3): 287-292, 1972.--No evidence is given of an association between smoking and complications, nor between smoking and operative mortality, nor between smoking and days to discharge. The most obvious trend is probably predictable, namely, patients over 50 have more complications and a higher mortality rate than those under 50. In spite of the relatively large number of patients included in this report the smoking habits, the age distribution, and disease rate in the population studied are quite likely to differ from the general population. Some inconsistencies were found between smoking histories taken on the same patient at different times. This may have resulted from the quality and accuracy of the information given to the examiner by the patient. Few, if any, generalities should be drawn from this research. Results apply only to immediate postoperative findings and do not apply to long-range effects of smoking upon the patient after surgery for duodenal ulcer disease.--E. M. D.

34780. LISITSA, F. M. and L. A. MOTROVA. (Fac. Postgrad. Med., Riga Med. Inst., Riga, USSR.) O klinicheskikh osobennostyakh alkohol'nykh polinevritov. [Clinical traits of alcoholic polyneuritis.] *ZH NEVROPATOL PSIKHIATR IM S'S KOISSAKOVA* 72(5): 647-651, 1972. [Engl. summ.]--The traits of alcoholic polyneuritis in 27 patients were studied. Four main clinical variants of the disease were distinguished. The most characteristic and frequent form of alcoholic polyneuritis was the syndrome of sluggish paralysis in the parts of the lower extremities. A more common and mixed form of polyneuritis, sensorial and atactic forms, were rarely observed.--J. P. K.

34781. STEGER, ROBERT E. (Coop. Ext. Serv., N. M. State Univ., Las Cruces, N. M., USA.) Native plants poisonous to humans. *J RANGE MANAGE* 25(1): 71-72, 1972.--A summary is given of the toxic principles, the plants, toxic parts, symptoms and some general comments for several commonly toxic plants in the U.S.A.--D. T. S.

34782. PARIS, RENE-RAYMOND and ANNE-MARIE TESSIER. (Fac. Pharm., Lab. Matière Méd., 4-ave. Observatoire, 75-Paris 6, Fr.) Présence de substances du groupe des Cucurbitacines chez diverses Euphorbiacées toxiques africaines, notamment chez *Maprounea membranacea* Pax et K. Hoffm. [Presence of substances of the group of cucurbitacines in various African toxic Euphorbiaceae especially in *Mb-*