51 Pharmacological Action of a New Antidepressant Drug, Propazepine, in Comparison with Imipramine. J. METYŠOVÁ and Z. VOTAVA (Czechoslovakia).

In the search for new drugs with antihistaminic effect carried out in the year 1956, a series of homopromazine derivatives was synthetized. One of these drugs, N-(3-di-methylaminopropyl)-homoacridane hydrochloride, is a structural analogue of imipramine. The pharmacological action of this drug, under the name propazepine, was tested in comparison with imipramine.

Both drugs show similar acute toxicity and action in the test of the rotating rod. Contrary to chloropromazine they do not lower body temperature and their effect on the vegetative nervous system is low.

Both drugs do not affect substantially the toxicity of the central nervous stimulants, amphetamine, pentazol and strychnine. On the other hand, an interesting difference in the interaction with the toxicity of caffein was found. Propazepine decreased the toxicity of caffeine, whereas imipramine and especially chloropromazine increased the toxicity.

52a Mode de l'Action de la Centrophénoxine et ces Dérivatives chez le Poisson. H. NAKAJIMA, J. R. L'HUILLIER, L. BAJINSKI et J. THUILLIER (France).

La Centrophénoxine (ester diméthylaminoéthylique de l'acide *p*-chlorophénoxyacétique) provoque chez le poisson une excitation pouvant entrainer des convulsions et une dilation des chromatophores. Cette action est étudiée en comparaison avec d'autres drogues neuro et psychotropes. L'influence du pH et les conditions physico-chimiques de la réaction sont examinées. L'antagonisme entre Mélatonine et Centrophénoxine est spécialement analysé.

52b Mode of Action of Centrophen-oxin and Derivatives in Fish (Behaviour and Chromatophores). H. NAKAJIMA, J. R. L'HUILLIER, L. BAJINSKI and J. THUILLIER (France).

Centrophenoxin (dimethylaminoethyl ester of *p*-chlorophenoxyacetic acid) induces excitation in fishes capable of producing convulsions and dilation of the chromatophores. This action has been compared with other neuro- and psycho-tropic drugs. The effects of the pH and physico-chemical conditions of the reaction have been studied. A special analysis has been made of the antagonism between Melatonin and Centrophenoxin.

53a Analyse Pharmacologique de la Narcose et de la Stimulation Respiratoire Provoquées Simultanément par une Même Drogue. J. THUILLIER (France).

Le diethylamide de l'acide 2-méthoxy-4-allyl phénoxyacétique (G. 29.505) est le premier composé chimique connu possédant à la fois des actions narcotiques et analeptiques respiratoires puissantes.[1] L'anesthésie générale obtenue avec cette substance est profonde et de courte durée. En même temps que la narcose, l'injection intraveineuse de G.29.505 provoque une stimulation respiratoire plus forte que celle obtenue avec la plupart des analeptiques connu; cette action eupnéique peut s'opposer à la dépression respiratoire provoquée par la morphine ou des composés analogues.

Des hypothèses sont discutées pour tenter d'expliquer la coexistence dans une même molécule de deux actions thériquement opposées: narcotique et analeptique.

53b Pharmacological Analysis of Concomitant Narcosis and Respiratory Stimulation Induced by a Single Drug. J. THUILLIER (France).

The diethylamide of 2-methoxy-4-allylphenoxyacetic acid (G. 29.505) is the first chemical compound known to possess at the same time narcotic and powerful analeptic respiratory actions.[1] The general anaesthesia obtained with this substance is deep and of short duration. Together with narcosis, intravenous injection of G. 29.505 causes stronger respiratory stimulation than obtained with most known analeptics: this eupneic action can resist the respiratory depression induced by morphine or similar compounds.

There is a discussion of hypotheses attempting to explain the co-existence in the same molecule of two theoretically opposed actions: narcotic and analeptic.

---

1. THUILLIER, J. and DOMENJOZ, R. (1957), *Anaesthetist (Berlin)*, **6**, 163–7.

54 The Pneumokinetic Activity of Dimefline (3-Methyl-7-Methoxy-8-dimethylamino-methylflavone, Rec 7-0267) compared with that of Other Central Nervous System Stimulants. I. SETNIKAR (Italy).

Dimefline has been compared with the following drugs for pneumokinetic activity: (a) other brain stem stimulants (bemegride, picrotoxin, pentetrazol and 2:3-dimethyl-7-methoxy-8-morpholino-methylchromone or Rec 7-0105); (b) some other general central nervous system stimulants (prethcamide, nikethamide, diethylamide of 3-ethoxy-4-hydroxybenzoic acid or DEHB); (c) strychnine; and (d) lobeline.

The experiments were performed on non-anaesthetized rabbits. By means of a body plethysmograph the tidal volume (V_T), the pulmonary ventilation (V_{Pul}) and the frequency (F) were recorded.

Pentetrazol, nikethamide, strychnine and lobe-