

intraperitoneally. This evidence strongly suggests that soyin may not be absorbed, or it may be inactivated as the result of digestive processes *in vivo*. This view is not necessarily inconsistent with the previous observation that the growth inhibition of rats fed soyin is simply the result of lowered food intake(2).

Summary. The quantitative precipitin technic revealed that the most highly purified preparation of soyin available was not strictly homogeneous as had been previously indicated by electrophoretic and diffusion measurements. By applying suitable corrections for the minor impurity present in soyin, the soyin content of a crude saline extract of defatted soybean flour was found to be approximately 10%. Toxicity and hemagglutinating data gave results which were in substantial agreement with this value. The soyin content of defatted soybean flour is about 3%.

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Received June 15, 1953. P.S.E.B.M., 1953, v83.

Excretion of 3-(3-Amino-2,4,6-Triiodophenyl)-2-Ethyl-Propanoic Acid (Telepaque) by Man.* (20411)

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Recent reports(1-8) conclude that 3-(3-amino-2,4,6-triiodophenyl)-2-ethyl-propanoic acid (Telepaque) is superior to any of the cholecystographic media now available because of a significant reduction in the incidence of undesirable side effects and better gallbladder visualization. Studies on the excretion of this material by man have not been reported. McChesney and Wyzan(9) have studied the excretion of Telepaque by rats and recovered from 77.5% to 84.5% of ingested dye in the feces and from 2.1% to 4.8% in the urine, after the animals had been on the Telepaque-containing diet for 7 days. 11.3% to 11.8% was recovered from the digestive tract, and most of this material would

have appeared in the feces in time. These findings are in sharp contrast to the excretion of beta-(4-hydroxy-3,5-diiodophenyl)-alpha-phenyl-propionic acid (Priodax) by man as reported by Crismer(10), who was able to recover 19% of the total ingested Priodax from the feces and 74% from the urine. The purpose of this communication is to report our findings on the excretion of Telepaque by man.

Method. Two grams of Telepaque (containing 1333.6 mg iodine) was given to five adults with normal gastrointestinal tracts. The 4 tablets were taken with supper at 6 P.M. when collection of 24-hour urine and fecal specimens was started. All the urine and feces were collected, thoroughly homogenized, and analyzed for total iodine present during the five 24-hour periods following the administration of the Telepaque. The iodine

* This investigation was supported by a research grant from the National Institutes of Health, Public Health Service.

TABLE I. Iodine Recovery, Following Oral Ingestion of 1333.6 mg Iodine (2 g of Telepaque).
5 subjects.

Day	Urine		Feces		Total % recovered
	mg I ₂ recovered	% of total dose	mg I ₂ recovered	% of total dose	
1	110.2		388		
2	50.2		425		
3	23.1		147		
4	4.7		34.2		
5	0		19.6		
6	0		9.8		
7	0		4.3		
	188.2	14.2	1027.9	77.0	91.2
1	98.5		594		
2	57.8		216.5		
3	24.8		79.4		
4	0.6		36.6		
5	0		6.1		
	181.7	13.6	932.6	70	83.6
1	76.2		472.8		
2	37.4		392.4		
3	12.6		158.5		
4	5.6		60.7		
5	0		3.8		
	131.8	9.9	1088.2	81.7	91.6
1	86.3		362		
2	54.0		349		
3	39.6		126		
	179.9	13.5	837	62.7	76.2
1	82.6		731		
2	33.5		238		
3	27.8		26.4		
4	3.1		28		
5	0		8.9		
	147.0	11	1032.3	77.5	88.5

determinations were made by one of us (D.R.) according to the method described by Bang and Georg(11) with some modifications. Bang and Georg devised and used this method for a study of iodophthalein in various body fluids with an error of determination of 0.5 to 1 μ g using 0.0004715 N thiosulfate for the titration. In our study with Telepaque, 0.001 N thiosulfate was used to facilitate titration with a 2.0 ml self-filling burette and because larger concentrations of iodine were present. Since the thiosulfate in the Telepaque study was about twice as strong and the samples a little smaller, an error of 2 to 5 μ g may be expected per titration, which would affect the results very little.

Results. The iodine analyses of the samples and the percent of iodine recovered are presented in Table I.

Summary and conclusions. This study

shows that 86% of the Telepaque was eliminated in 5 days, 12.4% by way of the urine, and 73.6% by way of the feces, in human subjects. Fourteen per cent was not accounted for, although the most probable route is via the feces in smaller and smaller amounts beyond the 5-day period of study. A higher percentage of Telepaque was thus recovered from the urine than the 2.1% to 4.8% previously reported(9) from the urine of experimental animals. The higher fecal and lower urinary excretion of Telepaque, in contrast to the 19% fecal and 74% urinary excretion of Priodax reported by Crismer, may be related to the superiority of the former as a cholecystographic medium.

The authors wish to acknowledge the encouragement and suggestions of Dr. H. S. Weens, Chairman of the Department of Radiology, Emory University

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Received June 15, 1953. P.S.E.B.M., 1953, v83.

Suppression of Hyperoxic Convulsions by Nitrogen at High Pressure.* (20412)

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Present information regarding the effect of breathing air at high pressures indicates that disturbances arise from the action of either oxygen or nitrogen on the nervous system(1). It is the purpose of this paper to present evidence that the depressant effect of nitrogen in this respect is actually antagonistic to the excitant action of oxygen when both gases are at increased pressure.

Method. Adult male and female mice were used in the experiments which were carried out in a steel chamber equipped with a window and large enough to accommodate 8 animals. Each mouse was isolated in an open ended glass jar standing upright on coarse wire mesh over soda lime. Approximately 2 minutes were required to fill the vessel to the desired gas pressure and the time for the appearance of the first convulsion in each mouse was recorded after the pressure of oxygen reached 90 psi.

Results. Usually the first indication of central nervous excitation in mice exposed to oxygen at high pressure is the presence of tail erection (Straub's sign) occurring at any time in the preconvulsive period. During the con-

vulsive seizures clonic movements of the limbs are produced with such violence that the animal is propelled upwards against the restraining jar with considerable force. In males this is accompanied by ejaculation and in both sexes by urination. When the convulsion subsides the animal appears to be in no distress until the third or fourth seizure when obvious depression supervenes characterized by gasping-retching movements. The variation in convulsive behavior in mice after exposure to 90 psi of oxygen can be seen by reference to Fig. 1 (top) where the percent of animals involved in seizures is compared with the duration of their preconvulsive period. Convulsive behavior in mice first exposed to helium at 400 psi for 5 minutes as a control before the addition of 90 psi of oxygen is shown in Fig. 1 (middle). In both cases all animals displayed several seizures, as described above, before termination from respiratory failure. In mice first exposed to 400 psi of nitrogen for 5 minutes, before the subsequent addition of 90 psi of oxygen into the chamber, convulsions were produced in only 23 percent of the animals, and their median preconvulsive period was increased 44 percent beyond that of the control series in oxygen alone. Fig. 1 (bottom).

There is considerable difference between

*These studies were aided by a contract between the Office of Naval Research, Department of the Navy, and The University of Rochester.