The amount of dye eliminated shows us accurately the extent of impairment of the kidney. There is, moreover, no pathologic condition of the kidney in which there is an increased permeability to the drug. The amount of dye passed does not depend on the amount of urine in which it is passed; 40 per cent. has been recovered in 5 c.c. of urine.

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A CASE OF CHRONIC PARALDEHYDISM *

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The infrequency of chronic paraldehydism warrants the report of this case. I know of but three other cases reported in literature. This patient first came under my observation in the psychopathic wards of the Philadelphia General Hospital under the services of Dr. F. N. Dercum, with whose kind permission this report is made possible. In these wards one has the opportunity of studying many cases of alcoholic addictions, as well as morphin, laudanum, cocain and opium habits acquired by individuals. Less frequently are seen patients with the craving for other drugs, as caffein, strychnin, chloroform and acetanilid.

On account of the symptoms and nervous manifestations noted in this case, I was led to believe that it was due to some cumulative toxic action of some other drug than those classed in the above category. Close questioning, however, revealed that I was dealing with a case of chronic paraldehydism.

Paraldehyd is a product obtained by the action of dilute sulphuric or nitric acid on an aldehyd. It is a colorless liquid with an ethereal odor and disagreeable pungent taste. It is readily soluble in alcohol, but less so in water. It is a reliable hypnotic and nervous sedative, being almost equal in its soporific effects to chloral, though its action is less persistent and requires a more frequent repetition in its administration than chloral. It causes a sensible fall in arterial pressure, but is not so depressing to the heart as is chloral. It strengthens and slows the heart action, instead of weakening it. It produces a sound sleep which is refreshing to the patient. It is a useful hypnotic in insomnia from various causes, particularly in fevers, mania and hysteria, and has been used successfully as an antispasmodic in asthma and in the treatment of tetanus. It has no analgesic properties. Its disadvantages are that it has to be given in comparatively large doses and it has a disagreeable taste and odor. The dose of paraldehyd is from 20 minims to 2 fluidrams; but the latter quantity has frequently been exceeded without any ill effects. Very few cases of poisoning resulting from this drug are recorded. In one case on record the patient recovered from a dose of 3½ ounces after thirty-four hours of sound sleep. (MacKenzie, Douglas, Isle of Man.)

Chronic paraldehydism is infrequently seen. The individual presents a train of symptoms not unlike those observed at times in delirium tremens. Tremulousness, restlessness, mental anxiety and agitation with incoherent speech are most frequently noted. Emaciation, anemia, gastric derangements and cutaneous eruptions are also observed.

REPORT OF CASE

Patient.—J. R. T., white, American, aged 47, salesman, was admitted to the hospital Oct. 15, 1909, with chief complaint

of insomnia and nervousness. He had been using alcohol for a long time, but never to excess; used tobacco to excess. He had a brother in an insane asylum suffering from recurrent mania.

The patient dated his present trouble to five years before admission when he was in a hospital for treatment for insomnia, from which condition he had suffered for the past twenty-five years. While in the hospital he received 1 fluidram of paraldehyd at bedtime with the desired result of a sound sleep. After four weeks' stay in the hospital he was discharged as cured of his insomnia. For the next three years he abstained from the use of paraldehyd. The insomnia then recurred and he gradually began to resort again to this drug to alleviate sleeplessness. At first 1 fluidram sufficed to induce sleep, but gradually he increased the dosage until during the year previous to admission he became so enslaved to the drug that he took on the average of 2 fluidounces daily to produce the desired hypnotic effect. After each such dose he felt intoxicated, this being followed later by a state of contentment; a panorama of beautiful pictures and recollections of pleasant things, long forgotten, passed through his mind in rapid succession; he felt exhilarated and appeared stronger. He had not noticed any ill effects from its use on the stomach but had observed a tendency toward looseness of the bowels. A sound sleep would generally follow the administration of 6 or 8 fluidrams of the drug and on awakening his head would always be clear. Though his hands and feet perspired, yet they felt cold.

Examination.—The patient was a small, stockily built white man apparently much older than his years. He was very restless and continually interrupted to ask questions. While in bed he refused to lie down, but sat up and was forever taking notice of his environment. His face was erythematous, the small capillaries were markedly dilated and there was a prominent cyanotic tinge to the facies. The nose had the appearance of an acne rosacea. The hair was thick and almost gray, skin warm and moist. His eyes were of medium size and reacted to light and accommodation. A prominent areus senilis was present. The vessels over the entire body showed evidence of an existing arteriosclerosis. The lymph-glands and muscles were normal. The patient showed a fine tremor of fingers, lips, tongue and facial muscles, much more marked than is commonly seen in alcoholics. The hands were cyanotic, fingers broad and clubbed. The buccal mucosa was congested. The tongue was dry, coated and fissured, large and centrally protruding with fine tremor. The teeth were in bad state of preservation. The chest was rounded and barrel-shaped. The skin over the thorax was mottled and showed some acne lesions. The lungs and heart were normal; the abdomen flabby and distended, liver and spleen were not palpable. Ophthalmoscopic examination of the eyes, and examination of urine and blood proved negative.

On the evening of admission insomnia was marked. The patient slept but a half hour at a time, although under the influence of powerful hypnotics, as the following which was repeated three times during the night:

	Gr.
Sod. bromid.....	xxv
Chloral hydrate	xv
Hyoscin hydrobromid	1/100

During the entire night he was restless and constantly craved for a drink of paraldehyd. He drank large amounts of water and expectorated freely. The following night the same treatment was administered, but with very slight effect on the insomnia. He remained in the hospital for one week and was discharged with no perceptible improvement in his condition.

Age of Parents and Expectancy of Life of Children.—The expectancy of life of those born at the maturity of the parents is about fifty years, and at the extremes about half that figure. Now, as the object of reproduction is to reproduce, births in these late years are in a collective sense valueless.—R. J. Ewart in *Eugenics Review*.

* Read before the Philadelphia Psychiatric Society, Nov. 10, 1911.