

scribe it with impunity when this tract is healthy. Only in the severest forms of disease of the stomach can paraldehyde be regarded as contra-indicated.

Upon the kidneys there is no appreciable effect; if anything the remedy promotes the flow of urine and acts as a sedative to the urinary mucous tract.

Concerning the toxicology of paraldehyde, no undoubted case of death from a single dose is on record, though as much as twelve to thirteen teaspoonfuls and even more have been taken at one dose, *i. e.*, twelve to thirteen times the ordinary therapeutic dose. There is mention in the *Brit. Med. Journ.*, 1890, of death after six to seven teaspoonfuls of a paraldehyde mixture, but the case was one of enteric fever, and the proofs are entirely wanting, according to Bumke, that paraldehyde was the undoubted cause of death.

Mackenzie (*Virchow-Hirsch's Jahrb.*, 1891, i) records the enormous dose of $3\frac{1}{2}$ ounces with recovery after very pronounced toxic symptoms—stupor, insensitiveness of the pupils, lividity, hurried pulse and breathing.

Chronic intoxication may arise if the use of the drug is long persisted in, but the occurrence is rare, and according to Bumke only ensues when large doses, *i. e.*, 30 grammes (seven to eight teaspoonfuls), are taken. The symptoms in these cases resemble the delirium of alcohol.

From the foregoing it follows that we have in paraldehyde a most valuable hypnotic suitable for all forms of sleeplessness with the exception of that caused by severe pain; that in the usual dose of 45—90 minims it rarely produces either by-effects or after-effects; that it is not contra-indicated by disease of heart or lungs or kidneys, or even of the alimentary tract except in very serious disease of the stomach; finally that to its administration there is no real impediment in the way of taste or smell. (We might add that any difficulties which might occasionally arise on the last count are at once overcome by ordering the drug in gelatine capsules.)

HARRINGTON SAINSBURY.

On the Treatment of Epilepsy by the Toulouse-Richet Method. (Psychiat., Neurol. Wochenschr., Feb. 28th, 1903.) Halmi and Bargaras.

The authors draw attention to the continuous arising of new remedies for and new methods of cure in epilepsy, and the as constant disappointment of our hopes which further trials of the new agents bring. In particular they make reference to the combined opium and bromide cure of Flechsig, which later developments and several recorded cases of death whilst under the treatment have brought into discredit. They point out that the epileptic seizures may, for various reasons, disappear for long periods—two to twenty-nine years, as the more recent statements of Sinkler make clear,—and the futility, therefore, of the attempts to demonstrate the curative value of drugs by observations extending over periods of three to four months, or at the most one year. In spite of these objections, however, they determined to make trial of the Toulouse-Richet method, so strongly had it been recommended.

As will be remembered, this method consists in the reduction of the chloride of sodium in the food (by an appropriate diet) during the time of administration of the bromides; the theory being that under these

conditions the bromide can substitute itself for the chloride of sodium in the tissues, and hence, by a more intimate contact, influence more powerfully the cell activities.

Fifteen cases were selected for trial. During a period of ten months these were subjected to bromide treatment with ordinary diet; during the two following months the bromide was withdrawn, the diet continuing unchanged; the Toulouse-Richet method was then pursued during one month; and then finally the patient reverted to ordinary diet and bromide for another seven months.

The results of these trials certainly do not prove the value of the method; they may be described as negative. But then the lines of the experiments do not appear to us to have been very judiciously laid down. Why the two months' period of complete withdrawal of the bromide before commencing the Toulouse-Richet method? This must of necessity have disturbed the balance reached during the bromide and ordinary diet period, with the result that the effect of the hypochlorised diet of the Toulouse-Richet method did not come in direct juxtaposition to the ordinary diet period, though this was what we wanted. Then, too, why the short period of the Toulouse-Richet method? This is meaningless. The periods should be of equal duration. Two of the fifteen cases selected for observation died after the commencement of the Toulouse-Richet method, but also after this treatment had been abandoned; in the one case there had been thirteen days of treatment, in the other seventeen days. It does not appear at all clear that the method had anything to do with the death. Somewhat illogically, so it appears to us, the authors, whilst denying any curative value to the method, admit that it does develop the action of the bromide; indeed, they ascribe the two deaths to this over-action. But unless they are prepared to deny any therapeutic value to the bromides this admission asserts all that MM. Toulouse and Richet have claimed, *viz.*, that the activity of the bromides is heightened by the withdrawal of salt from the dietary. This is their teaching, and their recommendation is to *reduce the dose of bromide* when passing from a full saline dietary to a hypochlorised diet.

HARRINGTON SAINSBURY.

Pseudo-epilepsies and the Relief of Some Forms by Thyroid. (*Journ. of Nerv. and Ment. Dis.*, Oct., 1902.) *Browning.*

The following are some of Dr. Browning's conclusions:

1. "In the young there occurs a class of cases characterised by recurrent attacks of heterogeneous type, and that may conveniently be called pseudo-epilepsy."

Our comment is that to give a name to anything so nondescript as his class of cases would be most unwise.

2. "This form is curable."

But we must add it is so nondescript that the fear is that it will never be diagnosed.

5. "Troubles of this kind, when due to rachitis, are amenable to thyroid treatment."

That will be unexpected, inasmuch as thyroid is not a recognised treatment for rickets.