ABSTRACTS

conditions as to food, etc., in the cases observed. The blood-urea did not correspond to the amount of albumin in the urine, and furnished more useful information than the latter. It was found that in cases of pure uræmia, and in melancholia, the proportion of urea was low or moderate, but whenever confusion was added to excitement the proportion rose. In dementia praecox the proportion was always low. In alcoholic insanity, in arteriosclerotic dementia, and in other cases in which torpor or mental confusion were due to organic cerebral lesions, as well as in slowly advancing senile dementia, the proportion was moderate. In cases of confusion irrespective of the type of psychosis, the proportion was high. Blood-urea examination may be of considerable use in diagnosis, and high urea values may be regarded as bad prognostic evidence both as to life and mental recovery.

A discussion follows of the imperfectly understood relationship of uræmia, liver and kidney disease, and the influence of the sympathetic and endocrine systems on these organs. In addition to the above findings, the author concludes that confusion is the direct result of increase of urea in the blood.

R. G. GORDON.

TREATMENT.

[146] The use of thorium X in mental therapy (Sur un essai du thorium X dans la thérapeutique psychiatrique).—DADAY, BESSIÈRE, and JALOUSTRE. *Presse méd.*, 1922, xxx, 48, 520.

The writers give the following results of their experiments with thorium X in the treatment of mental conditions:

<table>
<thead>
<tr>
<th>Condition</th>
<th>Cases</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melancholia</td>
<td>9</td>
<td>No change</td>
</tr>
<tr>
<td>Dementia praecox</td>
<td>4</td>
<td>3 unchanged</td>
</tr>
</tbody>
</table>

There was marked success in an early case of the latter disease, which was rapidly progressing towards chronicity, but whose symptoms cleared up so rapidly and completely that discharge from the asylum was possible in a very few weeks.

Confusional insanity, 3 cases, 1 unchanged.

In the other two cases the results were excellent. Improvement began in ten or twelve days, i.e., after the second injection, and both cases were discharged cured within five weeks, although the usual period required is seven or eight weeks.

The conclusions drawn were:

1. Thorium X is inoffensive even in big doses during the first series of injections. (The technique includes two series.)
2. When thorium is going to be efficacious, the improvement shows itself after two or three injections.
3. The action seems to be nil in chronic cases, but definitely successful results were obtained in the three acute cases mentioned, warranting further trial of the method. The exact way in which thorium X acts is not understood, but the improvement is undeniable.

The technique consisted in giving five weekly hypodermic injections of an isotonic solution of bromide of thorium X, rest for one month, then
five more injections. The thorium is put up in ampoules which contain doses ranging from 10 to 1000 micrograms. It must not be forgotten that the radio-activity of thorium X diminishes by half in three days and progressively afterwards, until at the end of twenty days activity is practically gone. This in itself would appear to be a safeguard against the danger of cumulative effects. Injections of large doses (above 500 micrograms) produce a dark pigmentation of the skin in from three to five weeks, which disappears in three or four weeks by desquamation. During the first series of injections there was little reaction, local or general. During the second series there were nausea and vomiting in some cases and 'tendance lipothymique'. Pigmentation was more liable to occur as the result of the second series of injections. There was no accident in connection with one hundred injections.

JAMES YOUNG.


From experimentation on rabbits, Meltzer and Auer showed many years ago that the primary effect of magnesium upon nerve-cells was that of paralysis without any preceding excitation, and was seemingly exclusively inhibitory. It was thought, therefore, that it might be of value in excited mental states, and in this paper the results are given of the use of magnesium sulphate administered hypodermically in doses of 1 or 2 c.c. of a 25 or 50 per cent sterilized solution as a sedative in the Warren State Hospital. In all, more than 250 doses were given to 50 patients. Half of them were agitated depressions, 7 were dementia praecox, 4 were paralytics, and there were one or two each of epilepsy, senility, organic dementia, and hysteria. One was actively manic, and all were more or less agitated. The result in nearly all cases was the same. The patient relaxed and slept from four to six hours. Some patients did not react at all. Of the total 250 doses, 30 were without effect. The most marked effect was obtained in simple agitated depressions. There was no opportunity to give the salt to a sufficiently large number of very active, excited patients to know whether it is of value or not.

C. S. R.