I have always used the hydrochloride if obtainable, but if only five grains daily, the cheaper salts are just as satisfactory.

As soon as the patient can get about, some combination of arsenic in increasing doses and iron in small doses has proved most useful.

A COMPARISON OF TWO METHODS OF ADMINISTERING ARSENO-BENZOL COMPOUNDS IN SYPHILIS.

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A COMPARISON of the two following courses of antisyphilitic treatment may be of interest.

In the first series of cases treatment consisted of one dose of 0.3 gram of kharsivan, followed at weekly intervals by doses of 0.6 gram, until a total of 2.7 grams had been given, but an interval of fourteen days was allowed between the third and fourth doses. This course was thus completed in five or six weeks. For want of a better term it may be termed a "concentrated course" of treatment. If further treatment was necessary owing to the Wassermann reaction being still positive, potassium iodide was given for fourteen days, and then two more injections of 0.6 gram, with one week's interval between them. All the above was given intravenously by the gravity method.

In the second series of cases, which may be termed a "prolonged course" of treatment, three injections of 0.3 gram were given, then two of 0.4 gram, and two of 0.5 gram, all at weekly intervals, except for a fortnight's rest between the third and fourth injections, as in the other series. This course lasted about eight weeks, and the drug was given intravenously as in the "concentrated course." Further treatment, if necessary, consisted as a rule of intramuscular injections of nov-arsenobillon, at weekly intervals, generally one of 0.3 gram and one of 0.6 gram. Occasionally there were slight variations in the above prolonged course, as, for example, by substituting a dose of 0.5 gram for the second dose of 0.4, or a dose of 0.6 for the last 0.5 gram.

The criterion of cure was a negative Wassermann reaction.

The total amount of arseno-benzol compounds given to any one case was limited to 4 grams, the first course, at the end of which the Wassermann reaction was tested, consisting of a total of 2.6 to 2.8 grams; the second, or "follow up" course, before a second Wassermann test was made, bringing the total to an average of 3.9 grams in the concentrated course, and 3.6 in the prolonged series.

It will be seen from the table that, although the percentage of primary cases which showed a negative Wassermann reaction after the first course is slightly higher in the "concentrated" series, the results are completely changed when we consider the cases showing secondary symptoms.

Cases Treated with a Concentrated Course.

No. of Cases.	Negative with up to 3 grams.	Negative with up to 4 grams.	Positive after 4 grams.	Doubtful after 4 grams.
Total cases... 89	47=52.80%	14=15.73%	23=25.84%	5=5.61%
Primary ... 34	28=82.35%	3=8.82%	2=5.88%	1=2.94%
Secondary ... 52	17=32.69%	10=19.23%	21=40.32%	4=7.68%
No symptoms ... 1	0	1=100%	—	—
Previous treatment 2	2=100%	—	—	—

Cases Treated with a Prolonged Course.

No. of Cases.	Negative under 3 grams.	Negative under 4 grams.	Positive after 4 grams.
Total cases ... 100	68=68%	38=38%	4=4%
Primary ... 65	52=80%	12=18.46%	1=1.53%
Secondary ... 35	16=45.71%	16=45.71%	3=8.57%

All cases also received 1 grain of mercury, given intramuscularly, at weekly intervals.

Apart from the question of cure, one great disadvantage of the short concentrated course is that the reactions are much more pronounced than in the prolonged course. These include diarrhoea, vomiting, and sometimes a violent and immediate vaso-dilator effect, in which the patient's face becomes "blown up," and the pulse weak and irregular; this is most alarming when seen for the first time, but apparently it always passes off without active treatment. Opinions differ as to the benefits of adrenalin in this condition.

Although slight reactions, such as diarrhoea, vomiting, and headache, may occur with the prolonged course, they are not so marked as in the other, and I have so far not had a single instance of the vaso-dilator phenomenon.

It has been impossible to follow up these cases to see what percentage of relapses, if any, occurred in the two series.

Conclusions.

Advantage seems to lie with the prolonged course, partly owing to the lesser incidence and violence of reactions, and partly because the total results are better than with the concentrated course; this especially applies to secondary cases.

Should a patient showing only a primary sore have urgent reasons for wanting a short course, the concentrated course may be given, but otherwise it is better to spread the treatment out over a longer period.

Memoranda:

MEDICAL, SURGICAL, OBSTETRICAL.

TREATMENT OF DELIRIUM TREMENS.

DR. STARKEY has sounded a note of warning, in the *BRITISH MEDICAL JOURNAL* of January 10th, with regard to Dr. Wyatt-Smith's remarks, under the above heading, in the *JOURNAL* of December 6th, 1919, which I must support. Prior to the war I made extensive observations on the action of various hypnotic drugs with a view to forming some ideas as to their selection in different types of mental disease. My results were published in the *Journal of Mental Science* (July, 1914), but I feel that it may be of some interest if I record here some of my observations on the drugs mentioned.

Hyoscine.—My opinion is that this drug is a very powerful cardiac depressant and that it ought not to be prescribed in patients who suffer from "heart disease." I laid considerable emphasis on this in my article referred to above and expressed the view that it should not be given to anyone who was not in robust physical condition. In states of extreme maniacal excitement, in strong healthy people, however, when one wishes to obtain the influence of a hypnotic as quickly as possible, it is a most useful drug, and given by hypodermic injection it is very rapid in its action. I have frequently given doses of gr. $\frac{1}{10}$ with benefit; in fact, large doses must be given in these cases and in this way the repetition may be avoided. I have found it especially useful in cases of delirium tremens, as Dr. Wyatt-Smith states, and especially so if combined with atropine and morphine. In milder cases it is of some use in doses of gr. $\frac{1}{10}$ three times a day, but I prefer not to use it for repeated administration, and the warning given by Dr. Starkey is fully justified from the experience I have had of the drug.

Sulphonal.—Most of those who have done service in mental hospitals have considerable experience of the use of this drug, and although Dr. Wyatt-Smith states that he has not yet met anyone who had seen a case of sulphonal poisoning, I must add my name to the list, with Dr. Starkey, of those having had this experience. I have, however, only seen one case in fourteen years' asylum work. It is usually associated with vomiting, diarrhoea, and abdominal pains, and the patient slowly passes into a state of collapse. The warning signal is haematoporphyrinuria, and it seems to me, therefore, of the greatest importance when prescribing this drug to have careful observations made on the passage of urine, and the report of any tendency for it to change to a reddish tinge. It has been my invariable rule to have these instructions written on the box in which sulphonal is dispensed, and this may account for my having seen only one case of poisoning from the drug, but I realize the