

*Note on the Use of Sulphate of Duboisin.** By J. H. SKENEN,
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Sulphate of duboisin is a powerful sedative and hypnotic. I have used the drug for some time and administered it both hypodermically and by the mouth, generally in doses varying from grains $\frac{1}{100}$ to $\frac{1}{32}$, though as much as grains $\frac{1}{4}$ has been given at one time. The hypodermic method is the surer and safer, and is followed by fewer bad effects.

Action of a single dose hypodermically administered.— Within 15 to 30 minutes of administration slight temporary aggravation of excitement occurs, the pupils become dilated, and the face flushed. Cardiac action becomes more rapid, accompanied by a full and soft pulse. Speech becomes thick, drawling, and slow, and if the dose be large, inarticulate. Mouth and throat dry, gait ataxic, the general appearance of the patient much resembling alcoholic intoxication.

The excitement rapidly passing off is followed by drowsiness and a feeling of calm, which is followed by sleep, varying in duration from three to ten hours.

There is no recurrence of excitement when the patients are roused from sleep, and the only bad effects are dryness of the throat, and in some cases slight impairment of vision and occasional slight headache. There is no impairment of appetite. This is the general action of a single dose of the drug except in a certain class of cases to be mentioned later.

If given internally there is impairment of the appetite, with a tendency to faintness and vomiting.

Continuous administration is not successful, there is quiescence while the patient is under the influence of the drug. There is weak pulse and tendency to faintness. Marked ataxia is also present. Hallucinations of sight and hearing occurred in some of the cases so treated. Loss of weight sets in rapidly, but is easily recovered from.

Duboisin was used in all cases in which marked excitement was a symptom.

In acute mania its use was not followed by any beneficial results. Single doses, though producing quiet for a time, seemed to cause more excitement after. If continuously administered it induced rest and quietness, but a rapid loss of weight set in, which necessitated the suspension of the drug.

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In delusional mania, only used if required for outbursts of excitement, its action was entirely satisfactory. Excitement which would ordinarily have lasted weeks was cut short. Other sedatives did not have this effect.

In chronic mania its occasional use was followed by satisfactory results.

In general paralysis duboisin was used during violent excitement, both occasionally and continuously, with satisfactory results. On one occasion a congestive seizure followed the exhibition of $\frac{1}{32}$ grain of the drug.

In epilepsy duboisin is not of much use. Its action is uncertain, some cases of epileptic excitement being relieved, while in others the excitement was increased. It does not appear to have any action in altering the frequency of the fits.

In melancholia the worst possible results were obtained. In no single case was there the least relief, while in most the excitement was increased. There was a tendency to syncope, and in some cases hallucinations of sight and hearing were observed.

In dementia, used occasionally, it gave satisfactory results, insuring quietness and rest at night.

Dangers.—If carefully used these are few. Cases of valvular heart disease have received the drug without any bad results. Cardiac failure occurs when continuously administered, especially if given internally, and is due to too large a dose being used. One case (acute mania) in which the drug was pushed suffered from a slight convulsive seizure, characterised by twitchings of the muscles of the face and limbs. Increased excitement occurs in some cases not tolerant of the drug.

Indications for and against its use.—Cases of excitement due to hallucinations and delusions give excellent results. In all forms of chronic insanity with excitement, and in occasional cases of epilepsy, it may be used as a sedative with good results.

It should only be used in physically healthy persons. It should never be used, or only very carefully, in debilitated persons. It is not suited to acute mania, and is distinctly injurious in melancholia.

Duboisin is preferable to hyoscin or hyoscyamine, as the quiescent state established by its use is of longer duration and there is less prostration during or after its use than is the case with these other drugs. The after-effects are

not so marked, and few serious ones occur. Its action is described by some of the worst cases as soothing rather than prostrating, and it does not interfere with the recovery of those treated.

Discussion.

The CHAIRMAN (Dr. Ireland) said that he was not aware how much this drug had been used in Great Britain, but from notes that he had prepared of the professional views in France and Germany he had come to the conclusion that it was good in cases of motor restlessness. It combated extreme restlessness and sudden impulses, but apparently Dr. Skeen had found most benefit in chronic delusional mania. He never got a case in which he could use duboisin. He had sent some of the drug out to his son, who had charge of the asylum at Berbice, but had not received any report as to the results.

Dr. MACPHERSON said this was a comparatively new drug in psychological medicine, and it had been looked at askance by physicians on account of its disagreeable effects. Dr. Skeen had made some of his experiments at Larbert, and he had been thus very much interested. He had taken a small dose himself, and he found the effects most disagreeable. The action of the heart was weakened, its rapidity increased, and there was a feeling of thoracic oppression. He had seen a statement in the *New York Bulletin* that the drug was useful when combined with morphia and that sleep followed its use almost unerringly in the acute cases. He believed that sleep followed the use of duboisin alone in many acute cases, but the disadvantage of giving duboisin in acute cases was the tremendous loss of weight that took place. There seemed to be excessive waste of tissue, and he had seen acute cases lose 2 or 3 lbs. a day. That was a very serious drawback to its use. He could not help comparing the action of thyroid extract in the treatment of insanity with the use of duboisin in that respect. Thyroid, as they all knew, had the effect of reducing the body weight considerably with a recurrence of vitality afterwards, and he thought that there was the same recurrence of vitality after the use of duboisin within two or three days, but it was dangerous to push its use to that extent. Its most valuable effect, as Dr. Skeen had pointed out, was in what was known as systematised delusional insanity. In chronic paranoia, as they knew, great outbreaks of excitement were apt to occur under the persistent hallucinations. There was a time at which the patient seemed to reach the limit of endurance, and to assault people and behave in a disorderly way. He had seen a single administration of duboisin produce quietness for six weeks afterwards, the patient on the day after its administration being well-behaved and apparently in his normal condition. He thought that it was a drug that had to be used with the greatest caution. He still used it in chronic delusional cases, but not for other patients on account of its dangers, which were parallel with those of hyoscyamine.

Dr. SKEEN said that the case that Dr. Macpherson mentioned was a case of delusional insanity. The patient was sometimes violent for six weeks, and after the excitement once commenced the patient was often treated with morphia, hyoscyamine, and other drugs that were used for such cases, but none of these drugs had anything like the effect of duboisin. He had not so many cases to treat now as he used to have at Larbert, but still he found the same good effects in that particular class who were sometimes the most troublesome patients.