ON THE ABUSE OF HYPNOTICS.*

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Within a comparatively short time a number of patients have been received into the Pennsylvania Hospital for the Insane with a history of nervous exhaustion and physical impairment, followed by mental disorder, symptoms of incipient melancholia or mania. The history of these cases presented nothing unusual or out of the ordinary course of experience, but they were complicated with such anomalous and unusual symptoms as to suggest a suspicion that a form of disease perhaps heretofore unrecognized had appeared. Indeed a strong temptation existed with the aid of a classical dictionary, to overload still further our already congested nomenclature of insanity and neurology.

For the purpose of relieving the insomniac condition that is such a frequent accompaniment of the incipient stages of mental disorder, it was ascertained as a part of the medical history that in these cases hypnotics in large and repeated doses had been administered. To such a degree had this practice been carried that a pathological state was added or superinduced that seemed clearly to result from medicines prescribed to produce sleep. The number of cases of this character on my list makes a group of eighteen. Cases of opium or the alcohol habit are not included—all of the patients having been properly certified to be insane. It is not proposed to present full notes of all of these cases, but only to notice the salient characteristics of a few. In these cases it was evident that the active and threatening symptoms, the delirium and partial paralysis of functions of certain centres which we will notice, had been induced by the character of the hypnotics prescribed. It becomes important in our practice in a suspected case of this sort, for its proper treatment as to preserve human life, to be able if possible to differentiate between mental disease proceeding according to its usual course of development, and those cases of mental disorder resulting wholly

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from, or superinduced and complicated by, the toxic agency of large doses of hypnotic drugs. The importance of a particular inquiry as to the previous treatment in any case where a suspicion of hypnotic drug poisoning exists, is, we think, clearly shown by the cases we now cite:

CASE 1.—General health impaired by child bearing. No heredity. Four weeks before admission went to the seashore with nervous prostration. Became hysterical, restless, insomniac and finally noisy and maniacal. Was obscene, profane, complaining and disposed to throw herself about. Two weeks before admission showed suicidal tendencies. Had been treated with large and repeated doses of chloral and paraldehyde. During last four days kept under the influence of ether. The breath had an ether odor at admission. There was confusion of ideas; the pupils were dilated; the tongue covered with a white pasty coat; eyes bright; pulse 100 and feeble. During the progress of the case patient showed active hallucinatory disturbances, involving senses of sight, smell, hearing and taste: said that milk which was offered to her was blood; asserted that persons had heads on them belonging to others; fancied she saw her intestines hanging from nails on the walls of her room, her children mutilated before her eyes, heard their cries, and made efforts to rescue them. On admission the narcotics previously used were discontinued, and patient made a good recovery under hyosine and liberal food. Was discharged nine months after admission, recovered.

CASE 2.—Female, aged 28, mother of three children. Naturally emotional and refined. Had been much interested in her husband's work and assisted him beyond her strength. Had not fully recovered her strength after her last confinement. Two months before admission seemed run down, weak, sleepless, depressed. This condition increased until a mild attack of melancholia was developed with delusions of introspection. Was placed under the influence of chloral and bromide of potassium. Took 180 grains of chloral daily for six weeks, with directions that the doses should be administered more frequently if the excitement increased. On admission the physical condition was feeble; the pulse was accelerated and the action of the heart irregular. There were active hallucinations of sight, hearing, taste and feeling. She articulated with difficulty; there was partial par-

alysis of the tongue, incoördination of muscles of tongue and limbs and sighing respiration. The character of the hallucinations and delusions was such as to create fear and apprehension. The previous treatment was discontinued and the patient made a good recovery with the liberal administration of food, and sulfonal. Was under treatment four weeks.

CASE 3.—Female, said to have suffered from chronic nervous disorders and insomnia, supposed to have been occasioned by an alcohol habit. Had neuralgia and said to have been threatened with insanity for which she was treated with liberal doses of chloral, bromide of potassium and hyoscine. Fortunately had taken a liberal amount of food before admission, which she did not refuse. On admission was in a stuporous, feeble condition; unconscious; in a state of sub-acute delirium; unable to articulate; and had partial hemaplegia of right side. Pulse 140; tongue enlarged and covered with dark pasty coat. The skin had a dusky livid appearance. The hypnotics previously administered were discontinued and the patient was given nourishment liberally. Three days after admission was able to articulate indistinctly. The patient during convalescence seemed to have an impression of having passed through some terrible ordeal, was unconscious of her surroundings and had apprehensions of some impending trouble of a vague character. Made a rapid and quick recovery in three weeks without any medical treatment except an occasional laxative and plenty of food.

CASE 4.—Female of intelligence and refinement. Has a neurotic heredity. Never physically strong, but has had fair health until two years ago, when she became depressed: had gloomy forebodings and desired to be alone. Four months prior to admission the above symptoms became greatly aggravated. Had delusions and was in a state of active melancholia. Made her escape from her care-takers, wandered about alone for forty-eight hours and was found in a feeble exhausted condition. Continuing to grow worse was brought to the hospital. On her admission was observed to be in a state of great agitation, walked the floor, rubbed her hands, threw her body from side to side, moaned, saw dreadful things on the wall of her room, said her eyes were to be burned out and something terrible done to her. Said that she must go to the bottom of the sea and then to the planets, then burned forever with liquid fire in a place

somewhere between the sea and the firmament. Saw dreadful looking heads upon plants and trees: objected to taking food as it looked like blood. It is a part of the medical history of this case that the patient had taken about one ounce of paraldehyde daily for a period of six weeks before admission, and at the time of her reception a strong ether odor of paraldehyde was distinctly perceptible and was observed three weeks after admission. The patient has now been in the hospital eight months, during three months of which period it may be said she had active hallucinations affecting several of the senses. The active hallucinations then ceased and in all respects there was a decided improvement, but for five months past there has been a recollection of the terrible hallucinations which seemed firmly fixed. This patient now seems in all respects well except there remains an unwillingness to return home under an apprehension that the former mental disturbance will again become active.

CASE 5.—Male, aged 33, was admitted to the hospital with a history of recently having had typhoid fever during which he was mildly delirious. During the last three weeks of the fever for some reason he was given large and frequently repeated doses of whiskey. He had also morphia and one of the bromides.

The bromide was administered for two or three hours in ten to twenty grain doses. The amount of morphia given was not ascertained. A few days before admission the patient became violent, had hallucinations, was suspicious and at times apprehensive. When admitted he was in a feeble condition. His tongue was brown and dry, pulse feeble and rapid, skin dry, temperature 99. He had hallucinations of all senses, was suspicious and controlled by delusions. He heard his wife's voice and saw her talking in the grounds outside his window. Whiskey and other narcotics were discontinued on admission. He had liquid diet with iron and strychnia, and for a few nights hyoscyne hydrobrom., gr. $\frac{1}{12}$. The patient rapidly improved and in two weeks was out on the lawn, and in a week longer appreciated the delusional nature of his ideas. He had some headache and sensation of fullness, for which a pill of ergotine and nux vomica was prescribed with marked benefit.

CASE 6.—Male. Admitted to the hospital with a history of mental disturbances extending over five weeks, preceded by an attack of articular rheumatism which was of but short duration,

subsiding on the appearance of mental symptoms. For his rheumatic symptoms salicylates and potassium iodide had been prescribed, and for a hypnotic chloral, grs. 15 to 20. This dose was repeated at least once every night and not infrequently twice. For two weeks before admission he also had morphia by hypodermic injection morning and night, commencing with a quarter of a grain, gradually increased to a grain at each injection. Early in the history of mental disturbance he had also bromide of potassium in 30 grain doses, frequently repeated. On admission he was in a state of mental confusion. He had hallucinations of sight and hearing. He was wandering and incoherent in speech; skin dry; pulse 96; tongue heavily coated. He was given at bed time hyoscine gr. $\frac{1}{120}$, which was repeated at 2:30 A.M. without effect, as he was awake and talkative all night. On the second day of his residence in the hospital a tonic was prescribed, containing iron and strychnia, and that night nothing was administered as a hypnotic but whiskey, drams 6. He slept after 1 A. M., and was quieter on the day following. The whiskey was repeated and the patient slept nearly the entire night. In a week he was sleeping well, was quiet, and his hallucinations have nearly disappeared. The whiskey was then discontinued. In a week longer, two weeks after admission, he was so well that he was taken home, the tonic medicine being continued. The patient has visited the hospital since and appears entirely restored.

CASE 7.—Male. Brought to the hospital strapped to a bed in a condition of acute maniacal fury. For two weeks he had been treated for typhoid fever. He had been delirious and his head back of the neck and bottoms of his feet had been freely blistered. The blistered surfaces were quite fresh at the time of his admission. He had been given brom. of potass. grs. 15 every three hours, chloral grs. 15 night and morning, and had occasional hypodermic injections of morphia. He slept the greater portion of the night and in the morning was quiet and suspicious and apparently apprehensive. He was very reticent, did not express any delusions, though evidently entertaining some. His bowels were constipated, tongue coated, breath offensive. There was no abdominal tenderness nor any abnormal temperature. Patient in a few days talked more freely, said he had heard voices and seen people about him and that he feared

he was to be punished. He took his food frequently and slept sufficiently without hypnotic drugs. Iron, quinine and strychnia were administered, and as soon as the condition of his feet permitted, out of door exercise was taken. He remained depressed for several weeks, but the hallucinations rapidly disappeared and he was subsequently discharged well.

Cases might also be cited showing that similar hallucinatory disturbances may be produced by the excessive habitual use of chloral, bromides and opium.

The facts presented in the histories of these cases may seem sufficient to call attention to the possibility of dangerous complications from the use of, and abuse of, hypnotics. There was nothing in the early history of these cases that might not be observed and expected to occur in the usual experience of a hospital. As they progressed, however, hallucinations appeared, accompanied with restlessness, motor disturbances, fear of impending calamity, and manifest constitutional disturbances. The sense disturbance was general and very active. It related to the food that was presented—the air of the room—the environments of the hospital—the clothing—the identity of persons—terrible sounds and voices—dreadful apprehensions, accompanied by struggles to escape and suicidal attempts. The hospital treatment was further complicated by refusal to take food. Life was even seriously threatened in consequence of partial paralysis or impaired performance of functions of vital centres. Indeed we could not otherwise conclude than that a toxic delirium had been induced as an added complication, which imperilled life and subsequently retarded recovery in certain cases.

In all the cases forming the group, hypnotics had been administered to produce sleep in frequent doses for long periods, and as it appeared in several instances, the doses had been enlarged as the delirium increased. The delusive ideas remained in several cases for a considerable time after the patient appeared otherwise to be well—the vivid recollection of frightful visions arousing a fear that they would return if sent home. One patient now under treatment, but whose case is not presented above, is suffering from mental hebetude, languor, suspension of mental activity, took 480 grains of brom. of potass. every twenty-four hours for one year. She now seems to be slowly recovering from the drug poisoning.

The physical symptoms in these cases have quite uniformly been noticed to be a dilated sluggish pupil, diminished mental reflexes, a feeble heart beat, a flabby tongue somewhat pale and covered with pasty coat, and a tumid abdomen. If a patient comes to the hospital with a history of mental disorder and in addition there is a complication of delirium and has had large doses of chloral, paraldehyde, opium or bromides as a part of the treatment, with the physical symptoms which are named, we are then disposed to suspect that part of the trouble may be due to the toxic effects of some drug. I have sometimes been surprised that intelligent physicians should be led into what seems an erroneous and hazardous line of practice. But we must bear in mind that there is now a tendency to treat the insane privately, and it has occurred that excessive doses of hypnotics are not infrequently administered to produce quiet and prevent disturbances and noise which would disturb a neighborhood or others in the same house.

In the treatment of the cases referred to in this paper the hypnotics that had been used so freely were discontinued and with the exception of three, two being still under treatment with a prospect of recovery, all were restored to health except one by means of nutritious food, quinine tonics and a few doses of digitalis when indicated. Improvement began when the poisonous hypnotic medicines were discontinued.

It is now some time since there has been any interchange of experience in the use of hypnotics in American hospitals. But from observation and inquiry, I am of the opinion that in the treatment of insanity, their use has been decidedly diminished, or discontinued, in recent years.

I have named some of the direct injurious effects of large doses of hypnotics upon the brain which are shown in the cases stated. Of the indirect effects we may know less, but the serious question must arise whether damage to the brain of a permanent injury may not be done by their excessive use; and the tedious convalescence, mental hebetude and enfeeblement which often follows the acute outbreak, may not in part be accounted for as a result of the toxic effects and disturbed brain nutrition from prolonged and injudicious use of hypnotic drugs.