ORAL SERNYL IN OBSESSIVE STATES

By

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SERNYL, l aryl-cyclo-hexylamine, is a synthetic drug first used by the anaesthetists because, when given intravenously, it produces analgesia. However, the occurrence of psychological disturbances post-operatively led to the investigation of this drug by psychiatrists. It was found that Sernyl produces many interesting psychological disturbances, some of which resemble the primary symptoms of schizophrenia (Davies and Beech, 1960). In a previous paper (Davies, 1960) Sernyl was given intravenously to five patients with long-standing psychoneurotic illnesses. It proved to be an effective abreactive agent and produced some interesting results in three of the patients who had obsessional symptoms. Sernyl, in the doses used, is not an hallucinogen, though it produces other effects similar to lysergic acid diethylamide, which has been used extensively as a therapeutic agent, particularly in obsessional states (Sandison *et al.*, 1954). The preliminary report suggested that Sernyl might have some practical advantages over LSD—in particular, it produced a less severe disturbance and its effects were over more quickly. Further investigations were clearly indicated and this present paper reports on the use of oral Sernyl in five patients with obsessional illnesses.

MATERIAL

The five patients were in-patients at Bethlem Royal Hospital and some clinical details are given in Table I. Case reports are also given below.

TABLE I

Patient	Sex	Age	Length of Illness	Number of Interviews with Oral Sernyl
1	M	30	7 years	20
2	F	21	4 years	20
3	F	24	2 years	10
4	M	36	2 years	13
5	M	28	4 years	10

CASE REPORTS

(1) A thirty-year-old man was admitted for the treatment of an obsessional state of some seven years' standing. Hand-washing was a prominent feature of his illness.

His father died at the age of sixty-five, when the patient was twenty-seven. He was said to have been a moody man, prone to anger, and the patient always felt uneasy in his presence. His mother is alive and well, but has received treatment on two occasions for depression. She left her husband when the patient was fifteen. The marriage had not been an harmonious one and there had been many quarrels before they finally separated. There was one brother, five years the patient's junior.

The birth was normal and development was uneventful until his fourth year, when he began to bite his nails and wet his bed. At this time he received treatment at a child guidance clinic. At school he was an average scholar, and when he left he became a radio technician. He later served in the R.A.F. and then became a sales correspondent concerned with various electrical appliances.

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He began to masturbate in his teens, but there were severe guilt feelings and he was convinced that the habit would cause him some physical harm. Associated sexual phantasies were exclusively heterosexual. When he was twenty-four, he married, but it was never a success, mainly because of his obsessive symptoms. He was divorced four years later.

Obsessional symptoms began in his teens when, for some months, he was troubled by the idea that a bottle of milk might contain a piece of glass. However, this idea subsided over the course of several months and there was no recurrence of obsessional symptoms until he began to work for a firm making electronic equipment. He was aware that plating processes involved the use of potassium cyanide, and he became afraid that if he touched anything at work, he might be contaminated with cyanide. This obsessive idea became more troublesome, and he developed hand-washing rituals. For the seven years prior to admission, these symptoms had varied in severity and had been particularly severe when his marriage was breaking down.

On three separate occasions he received in-patient hospital treatment, during which time there was some improvement, though his symptoms returned soon after discharge. Immediately prior to the present admission, the fear of cyanide had become more severe and the hand-washing rituals occupied about two hours of each day, making him late for work on most days.

On admission, he was pleasant and co-operative. The main feature of the mental state was the obsessional thoughts concerning cyanide, which he felt was in some way related to his previous problems with masturbation.

Treatment and Progress

He received twenty treatments with oral Sernyl (5–10 mg.) and our impression was that this did facilitate the production of emotionally-charged material. At the first session he said, "I feel I am floating about; it's fascinating. I feel as if I am talking from a different part of my mind, and the troubles have been wiped clean—like a slate." At the second session, he talked about his fear of his father, after which, his hand-washing became more severe. At the third session, homosexual experiences were related with a good deal of relief. "It is like bringing the childhood memories back—I remember the local park, where there was a small forest—where people used to talk of mysterious things—witches, ghosts, dead people. I was always afraid somebody would get me if I was not good." After recounting his homosexual experience, he said, "Next time I met the man I was afraid he might put poison on to me. The fear of cyanide became intense and I did not want to meet him again."

At one time, he said, "My mind is scrambled up—I can remember, but I don't want to remember." At another, "Good Lord, it's fantastic the way it has brought back the memories; good Lord, yes—until the time my brother was born, I used to sleep with my parents—then they put me to live in a little room—good Lord—I'm re-living all these things. I woke one night, frightened that I would be put away because I was naughty. Fear, fear, fear, I am full of fear, all the time, even now. If I could know what I am afraid of, I could do something about it."

After thirteen treatments, he said, "I think that some of the force has been taken out of my compulsions, the strength of the habit has been slackened to some extent—my washing seemed to be like giving a sacrifice."

Twenty treatments were given in all with some general improvement in his condition. The drug seemed to facilitate his talking about emotionally-charged subjects and it seemed to provoke "memories"—"I have just remembered and seen things which happened when I was two or three—those distant memories come back to me in vivid detail."

There were no hallucinations, though he said on one occasion, "In my mind there are some furry creatures or some things with long beaks—I am not sure if I imagine them or can see them."

He was discharged from hospital after a four months' stay and resumed work. Three months later he was still at work, hand-washing was not a problem and he was not troubled with obsessions about cyanide.

(2) A twenty-one-year-old spinster was admitted to hospital for the treatment of hand-washing rituals that occurred 50–100 times each day and had been present for four years.

Her father, a farmer, was alive and well, aged 57. Her mother, aged 60, was described as "nervous and secretive", but she died of heart disease while the patient was in hospital. She had one brother, aged twenty-three. There was no family history of psychiatric illness.

Her birth was normal and her childhood development appeared normal, there being no neurotic traits. She did well at school and remained at a grammar school until the age of eighteen. Her periods began at the age of fourteen and were regular. When she was seven, she was attacked sexually by a mentally defective farm labourer. Between the ages of twelve and fourteen, she and her brother indulged in sexual play, which stopped when her menses began. She had a boy-friend when she was seventeen, but had never had sexual intercourse. She was described as a shy girl, very attached to her family, not prone to mood changes.

Four years before admission, after a farmer friend had stayed at the house, she began to wash her hands frequently. This became slowly more severe and was noticeably more so when she saw or touched one of the many dogs on the farm. In the year previous to admission, she had received psychotherapy and electro-convulsive therapy.

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On admission, the hand-washing was the main feature; if she resisted the compulsion, she became hot, tense and irritable. She was of average intelligence and was mildly depressed.

She received twenty treatments with oral Sernyl (5–10 mg.) and this seemed to help her to produce emotionally-charged material. There were no unpleasant side-effects and the effect of the drug was always over within three hours of its administration.

After the first capsule she said, "I feel giddy, my head feels funny; I am detached, as if I am going to sleep. I feel vague and frightened. I feel dirty, contaminated, somehow; I am dirty inside. I want to get it out, to scream I am bad. When I wash my hands, I think it is going to cleanse me. But it doesn't. I feel so bad, as if there is a devil inside me—as if something evil was eating me. This boy at the farm, now, I am afraid of him. I have to wash after anything he touches; I don't know why. Dogs. What have dogs to do with it? I try to connect them, but I don't understand. I don't understand. I wash my hands, then I look for a reason, but there is none."

On the second occasion, her body felt "different". "My head feels different, bigger, my hands are big. I feel puffed out."

On the third occasion, she said, "I feel as if I am away from the obsessions. Oh! I wish this feeling would last for ever. I wish I could forget everything. I feel I want to tell you everything." She then related her sexual experiences with her brother. "Now you can see my past is terrible—I have not told anyone before, I could not, it's very bad."

On the fourth occasion she commented, "I feel so devoid of emotions, so empty. So absolutely separate from myself." She went on to describe her feelings of aggression towards her parents.

At the eighth session, she said, "I saw a dog yesterday. When I saw it, I was paralysed; I could not move. I thought I was cured from that obsession with dogs. There must be something bad in me, my disease is evil. I feel dirty and in washing my hands I feel I will be clean."

At the fifteenth session, she said, "When I was small, four or five, I remember once I undressed to have a bath in the kitchen—there were a lot of dogs at the farm then, six or seven in all. One of them came in and started to lick my private organs. I was so fascinated that I tried to persuade the dog to do it again."

After twenty treatments, psychotherapy was continued without the drug, as it was felt that a good deal of material had been produced and that it needed to be used constructively in a non-drugged state.

Our clinical impression was that, while the abreactive treatment did little to change this girl's symptoms, the Sernyl was of practical value in facilitating psychotherapy.

(3) A twenty-four-year-old married woman was admitted to hospital for the treatment of an obsessive illness of two years' duration. Her father died at the age of thirty-two when the patient was nine months old. Her mother, aged fifty-two, is alive and well. She re-married when the patient was four, and is described as a "nagging, dominant person." There were no siblings and no family history of mental illness.

Her childhood development was normal, though she was a nail-biter and had recurring night terrors. She did well at school and was popular with both staff and pupils. While at school she developed a habit of checking her lessons with those of her colleagues before submitting the lessons to the teacher. When she left school, she became a secretary and worked well until she married at the age of twenty-two. The marriage was a happy one and sexual adjustment appeared to be normal. Both she and her husband wanted a child, and she became pregnant soon after the marriage. When she was six months pregnant, she developed obsessive doubts about her husband's love and fidelity. When the baby was born after a normal labour, she developed doubts that the baby was hers, thinking (though she realized it could not be so) that she might have taken the wrong baby from the hospital. In addition, she developed obsessional doubts about the reality of solid objects. She was treated with electro-convulsive therapy and psychotherapy at another hospital, but with little improvement in her condition.

On admission, there were no obsessive rituals, ruminations—*folie de doute* being the key feature of the mental state in an intelligent, attractive woman, who was mildly depressed.

At the first interview, she said, "I feel dizzy—my mind has gone dead—only casual thoughts are in my mind—I don't know if it's important. Oh! it's the same thought, really—about my husband and my child—my doubts—I just seem to remember a seaside holiday with my mother—rather unhappy—I was not getting on well with my mother. It's funny, I don't feel upset by my doubts now."

Treatment was continued and she talked freely about her mother, father, her schooldays. However, as the emotional element was not too prominent, 15 mg. of Sernyl was given on one occasion. This produced a severe disturbance, the patient screaming, shouting and reacting in an aggressive way when comforted. Later she described this experience and wrote, "Quite suddenly the giddy feeling became more acute and I had to lie down on the bed. But I felt steadily worse. I began to cry and panic and started to scream for John and Stephen. I felt completely drunk and had no control over the nonsense I was saying. I experienced a strange, weak and tingling sensation in the feet and legs. I started to sing in a cockney accent and then burst into laughter. I was given an injection. I was aware of everything and I fully realized that I was behaving abnormally, but could not prevent myself. Then everything in my body began to react and I felt weak and giddy; I began to panic and started to scream. I could not explain

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my feelings because my head was too full of thoughts. I then rested and got up later feeling weak, but somehow better."

Next time she was given 10 mg. of Sernyl, but again there was a severe disturbance and so the treatment was discontinued.

She was, at this time, much improved to her state on admission, though this was not necessarily due to the ten treatments with Sernyl.

She was later discharged from hospital and has remained well since, being little troubled by her ruminations.

(4) A thirty-six-year-old married man was admitted to hospital because of frequent hand-washing rituals associated with obsessional ruminations about venereal disease.

His father died in 1953 and is described as a drunkard. His mother and seven siblings are alive and well. Except for the father, there was no family history of mental disorder.

His early childhood seemed unremarkable; there were no neurotic traits. Later, he was an average scholar, but was particularly good at all sports. He joined the army in 1942, but was discharged within a year because of "nervous disability". Symptoms at this time could not be classified as obessional.

He married at the age of seventeen and, until a year or so before admission, his relationship with his wife was good, though marred by the fact that they had to live with her parents.

In January, 1958, he had sexual intercourse with a casual acquaintance he met at a café, and immediately developed guilt feelings and a fear of venereal disease. He went to nearly all the teaching hospitals in London, having repeated serological tests for syphilis, all of which were negative. Six months before admission, he found that when he passed a woman in the street, he would wonder if he had ever had intercourse with her and whether he could have venereal disease. These thoughts were typically obsessional in character. He asked his wife and children not to touch his things at home and he developed hand-washing rituals. His work began to be affected and he was admitted for treatment.

On admission, he was a man of low average intelligence, who was not a good talker. The obsessional features mentioned above were the main features of the mental state.

Treatment was begun with oral Sernyl and it was found that he was able to talk more freely about his obsessions and about this one sexual misdemeanour. Dosage given was 5–10 mg. and there was, on no occasion, any complaint beyond "dizziness" and there was no abreaction. In later interviews he talked about homosexual encounters. After eight treatments, he seemed better, hand-washing was less frequent and he seemed less troubled by his obsessions. However, at the eleventh session he said, "I am better, but suspicious. I don't like to eat from the table because everybody picks up bread from a common dish. I am suspicious of every new patient—all because of my fear of syphilis; I am afraid I shall catch it if I stay here."

He received thirteen treatments in all, then took his discharge, against advice, because of his fears of catching syphilis from the patients.

When last seen this patient was working and his obsessions had less force than on admission, but no fundamental change was apparent.

(5) A twenty-eight-year-old batchelor, a mathematics teacher, was admitted for the treatment of an obsessional illness of four years' duration.

Both parents were alive and well; the father, a retired civil servant, still treats the patient as a small child. There is one sister, aged thirty-eight, who has been in a psychiatric hospital for ten years with a schizophrenic illness.

Birth was normal and there were no neurotic traits in childhood. He did well at school, particularly in mathematics, obtaining a scholarship at nineteen to Oxford. Prior to his examinations there, however, he developed an illness in which anxiety, depressive and obsessional features were prominent. This responded to electro-convulsive treatment. He then went to one of the London University colleges, where he obtained an Honours Degree, and then took up teaching.

His sexual life was immature, the patient denying any form of sexual experience.

Four years before admission, at the time of his examinations at London University, he became unduly tired and developed hand-washing and checking rituals.

At school, he found that marking work became increasingly a burden as he checked and re-checked all the figures. Immediately prior to admission, he had to leave his job because of these increasing difficulties.

On admission he was tense and showed the obsessive features mentioned above. There were no schizophrenic features present. He received four treatments with oral Sernyl (5 mg.), but he was never able to talk freely, with emotion, about any topic. He talked about his college life in great detail, but with a complete absence of emotional significance. At the fifth interview (after 7·5 mg. of Sernyl) he said, "I feel very sleepy—I do feel odd—giddy—drowsy, as if I am drunk." His talk was slow and there were long pauses between words and sentences. He had great difficulty in following a train of thought.

Sessions were continued, but at 5 mg., talk was unaffected and uninteresting, and at 7·5 mg., the thought block occurred. There was, on no occasion, any abreaction.

After ten treatments Sernyl was stopped and the patient treated with a tranquillizing drug, which appeared to be of some benefit.

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Method

After a full psychiatric history had been taken, the patient was generally allowed to settle into the hospital routine for at least two weeks before treatment was commenced. The patient was then seen for two one-hour psychotherapeutic sessions each week. A capsule of Sernyl was given thirty minutes before the interview, the patient having had only a light meal beforehand. 5 mg. was given at first, but often this was increased to 7·5 mg. or 10 mg. until an optimum dosage was obtained. On several occasions 15 mg. appeared to be too large a dose, as side-effects were severe. At each interview, a particular topic was suggested to the patient and an attempt was made to keep the patient talking about this one topic. The interview was recorded by the therapist in writing. In addition to this drug-assisted psychotherapy, the usual active hospital regime was carried on, though none of the patients received any other form of physical treatment for their psychiatric condition.

Observations

The onset of symptoms is variable, but is generally 30–60 minutes after the drug has been taken and they persist for 1–3 hours. The symptoms, though less intense, are similar to those described after intravenous injection of Sernyl (Davies, 1960) and they will not be re-described. As previously reported, during the time of the drug's action, the patient often experienced relief from the obsessional symptoms. Early affectively charged "memories" were also described by three of the patients. In the first two patients, there was no doubt that Sernyl helped to produce affectively charged material that was of use psychotherapeutically. Some examples of this are given in the case reports. In the third patient, there were two severe disturbances after 15 mg. of the drug, yet the patient benefited from her course of treatment. The fourth patient may have derived some benefit from the treatment, but the fifth did not, as the drug produced thought blocking reminiscent of schizophrenia. The effects of Sernyl in each patient are shown in Table II, and the effects of the total hospital treatment summarized in Table III. It will be seen that though this drug did not help the fifth patient, yet he had improved at the time of his discharge from hospital.

Table II

Effects of Sernyl

Patient	Facilitated Talking	Abreaction	Severe Disturbance	Thought Blocking	Early "Memories" Evoked
1	+	+	0	0	+
2	+	+	0	0	+
3	+	+	+	0	+
4	+	0	0	0	0
5	0	0	0	+	0

Table III

Effects of Treatment

Patient	On Symptoms	On Social Adjustment	Psychiatric Assessment
1	Much improved	Much improved	Much improved
2	None	None	Unchanged
3	Much improved	Much improved	Much improved
4	Improved	Improved	Improved
5	None	Improved	Improved

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Discussion

The observations show that 5–10 mg. of oral Sernyl was usually helpful in promoting a free flow of emotionally charged material in the majority of these patients. Its effects, at this dosage, are neither severe nor long-lasting, and further investigations are clearly indicated. In particular, the relative long-term efficacy of Sernyl and LSD in a similar group of patients should be assessed. It is not the intention of this paper to maintain that abreactive treatment is necessarily beneficial in patients with an obsessional state. Kennedy's statement (1960) can hardly be improved upon:

"Where anxiety is nearer to the surface, cathartic methods will often bring some relief, but in some quarters the idea dies hard that abreaction should be made an object in itself. The main function of abreaction in the course of psychotherapy is to bring new material to the surface so as to allow patient and physician to assess its importance. The relief it brings is rarely permanent if the subsequent work of resynthesis is not taken up. In the case of obsessional states, a great deal of the psychotherapy that has been given has probably been wasted, for the long-term results are now known to be poor. The fallacy in treating obsessional states has been the belief that if psychopathological material of great interest and richness keeps appearing at the interviews, with strong abreaction, the patient will necessarily benefit. A common sequence in cases of obsession is that the appearance of symbol-rich material, often elicited with suspicious ease, is followed by great relief for a week or two. Patient and therapist then seek in vain to produce the same effect once more."

However, a safe, efficient, easily given abreactive agent would be of value and Sernyl, given intravenously or/and orally, may prove to have most of these qualities.

Summary

Oral Sernyl (5–15 mg.) has been given on seventy-three occasions to five patients with long-standing obsessional illnesses. The drug appeared to be useful in assisting psychotherapy in the majority of these patients.

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