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The Use of Lysergic Acid Diethylamide (LSD) in Psychotherapy

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ABSTRACT

One hundred of 150 patients with non-psychotic functional psychiatric disorders were benefited by the use of LSD psychotherapy. The dosage of LSD employed was 25 to 2000 micrograms intramuscularly per session for from one to 10 sessions. On this regimen four patients became psychotic and required electroconvulsive therapy. None were permanently harmed.

Indications for and contraindications to this form of treatment and a procedure involving a doctor and a nurse as co-therapists are discussed. In particular, LSD is considered to permit "perceptualization of the transference".

LSD possibly extends the scope and value of the psychotherapeutic approach in such cases.

SOMMAIRE

Sur 150 malades atteints de troubles psychiatriques fonctionnels non psychotiques, l'emploi combiné de LSD et de psychothérapie a permis d'en améliorer 100. La posologie de LSD par voie I.M. a varié de 25 à 2000 microgrammes par séance, le nombre de séances ayant été d'un à 10. Sous l'influence de ce traitement, quatre malades présentèrent des réactions de psychose et durent être traités aux électrochocs. Les réactions de psychose ne furent permanentes dans aucun cas.

L'auteur expose les indications et les contre-indications de cette forme de traitement et d'une méthode où un médecin et une infirmière étaient co-thérapeutes. Le LSD est considére en particulier comme capable de rendre "le transfert perceptible".

Il se peut que le LSD étende le champ d'action et la valeur de la psychothérapie dans ce genre de cas.

LYSERGIC acid diethylamide (LSD) was tested as an oxytocic substance in 1938 and discarded in favour of ergotamine. The Swiss chemist, Hoffman, resurrected the drug in 1943 when he accidentally discovered its hallucinogenic property. LSD has been used increasingly for psychiatric purposes since the early 1950's.

Two major reviews relative to this drug were published in 1957 by Rothlin[1] and by Wikler.[2]

Over the past four years we have used LSD in the treatment of 150 patients with functional psychiatric disorders, admitted to the psychiatric ward of the Toronto Western Hospital. These patients have received from one to 10 LSD-psychotherapeutic sessions each. Our tentative conclusion is that LSD, judiciously used, appears to be an aid to psychotherapy.

CLINICAL EFFECTS

Ingested or injected in appropriate doses, LSD has a marked effect, within minutes, on the central nervous system. This effect may last for 24 hours or more. In four of our 150 patients the LSD effect persisted for several days, being finally terminated by electroconvulsive therapy.

LSD affects all psychological functions of the central nervous system, that is, perception, association, alertness and action. The first three functions are increased by the drug, and the fourth is reduced.

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Perception.—Both external and internal perception are enhanced by LSD. Associations (memories, thoughts, etc.) may be perceived and even actions may induce perception. Thus, under the influence of this drug, a pianist tapping the metal at the head of the bed found that he could evoke the full sound of the piano keyboard. Typically, to patients treated with LSD, cool things become icy, warm things burning, and coloured things of brilliant hue and contrast.

Of greatest interest to the psychiatrist is the fact that LSD allows for the illusional perception ("re-perception") of the patient's original family figures (e.g. father, mother, parent surrogates and helpers, older siblings, grandparents and the like). Such re-perceptions are typically experienced as a distortion of the face, body or activity of the therapist. In technical terms, the patient may be said to "perceptualize the transference".

Association.—Rate and extent of association are increased by LSD, allowing for a wide-ranging search of the patient's associative network. As mentioned, in some instances associations may be perceived. The usual associative barriers between figurative and literal, active and passive, self and not-self, positive and negative, etc., may be breached. Frequently enough, the patient comes to the core of his neurosis, or personality disorder. Finding the problem is of course different from solving it. Thus we have observed a homosexual boy call out for hours, "Am I a boy or a girl?" as he writhed on the bed before the doctor and nurse

(reportedly seen as his father and mother). A manic-depressive hunchback remembered the sense of "confinement" experienced when he was forced to remain for a prolonged period on a stretcher in a preventorium at the age of one or two, because of tuberculosis of the spine. He seemed to recall such distressing details of this period of illness as the experience of having his toys taken away from him, and the death of the little boy, Billy, in the next cot.

Water or food may taste different according to which therapist serves. To one patient, for example, a spoonful of soup repeatedly tasted rich and full-bodied when it was given by the nurse, but empty and peppery when given by the doctor. Such findings came to mean "the contrasting taste of life according to my mother and father".

The LSD experience itself, with all its new juxtaposition of associations, is accurately remembered by those to whom this drug is administered, and may be used as a bridgehead to further understanding by both patient and therapist. Exceptions to this clear recollection of the experience are noted in the case of patients with hysterical amnesia, or in the very rare instance of effacement of the experience by an epileptic seizure.

Alertness.—The patient is rendered very wide-awake, and may be wakeful for a few nights following administration of LSD. During the LSD experience, statements and chance events may seem to occur at just the right "psychological moment".

Action.—Motor action-patterns, both skeletal and autonomic, are facilitated and simplified, and regressed. A single, simple act may seem to summarize a multitude of inter-related more complex acts. For instance, a young female artist would not hold her artist's brush when it was handed to her. She repeatedly dropped the brush, preferring to stroke the canvas with her fingertips and prolonged the stroke onto the doctor's arm. For this girl art meant, "Stroke Daddy".

Crying, vomiting, apparent hunger, shivering, or emptying of the bowel and bladder may at times allow for a review of early appeal-response, feeding and toilet-training patterns.

INDICATIONS FOR LSD PSYCHOTHERAPY

Table I indicates the most favourable cases for LSD psychotherapy, using the American Psychiatric Association (APA) classification, with common synonyms recorded in parentheses.

METHOD

All patients have been treated voluntarily, following thorough medical and psychiatric investigation. We now use a "large-dose", and a "small-dose" regimen of treatment. In all cases the patient must remain on the ward for 24 hours, and receive a follow-up interview before release the next day.

TABLE I.—INDICATIONS FOR LSD PSYCHOTHERAPY

1. Psychoneurotic Disorders:
   - Conversion
   - Phobic
   - Depressive (neurotic depressive reaction; reactive depression)
   - Other (mixed psychoneurosis; pan-neurosis; pseudoneurotic schizophrenia; borderline or latent schizophrenia)
2. Personality Disorders:
   - Cyclothymic (obsessional)
   - Passive-aggressive (obsessional)
   - Compulsive
   - Sexual deviation
   - Addiction
3. Transient Situational Personality Disorders
4. Manic-Depressive Reaction—in remission

LARGE-DOSE METHOD

The patient, in a fasting state and receiving no other drugs (except for diphenylhydantoin (Dilantin) when indicated), is placed in a single room and fastened to the bed by a Posey belt, which is locked. Doctor and nurse sit at either side of the bed as co-therapists, the major purpose being to recreate the basic family triangle (father-mother-child) as much as is possible for that patient. Visual aids, mementos, transitional objects, old photographs or additional therapists are used according to available material, historical data and dynamic hypothesis. It is occasionally useful and feasible to bring in the patient's actual parents, grandparents or other appropriate persons during the treatment.

LSD is administered intramuscularly in doses ranging from 100 to 2000 micrograms (μg.). Alcoholics, drug addicts and highly obsessional or near-psychotic personalities require higher doses. Known or suspected epileptics are also given diphenylhydantoin sodium intramuscularly.

Expanded perceptual, associational and abreactive material usually begins to appear within a few minutes after injection of LSD. If it does not, the initial dose is repeated and may be repeated again. It should be noted that we have not used a total dose of more than 2000 μg. LSD in any individual session.

Every attempt is made to define, maintain and work out the transference (by "transference" is meant that portion of early interpersonal experience which *distorts* current interpersonal experience).

It is typical that the patient will pick out some detail of the eye, nose, cut of jaw, hair, posture, etc., in the therapists which may be used as a clue to the transference. It may be said that the patient is most apt to see those faces that he has known best, earliest and longest. Old fantasy material may also be revealed in the shape of devils, messiahs, wise or foolish young or old men, evil-eyes, witches, goddesses, or even the girl down the block.

Of special interest are the double or ambivalent images that these patients experience, and the bond-barrier effect. With respect to the former, the patient may literally see dislocations, super-

positions, or juxtapositions which indicate "two-facedness", "saying one thing and doing another", conflict between thought and feeling, etc. Thus a manic-depressive woman (in remission) saw her face in the mirror as half divinely beautiful and half fat and ugly; and was thus able to recognize and consider her own double self-image; in a sense she saw the manic and depressive sides of herself all at once. A missionary's daughter, raised in the combined Christian-Chinese culture of the China Inland Mission, saw both nurse and doctor literally split down the middle into Chinese and Caucasian halves.

The barrier-bond effect between parent and child, or between therapist and patient, may receive rich perceptualization, e.g. in the form of a cobweb, lattice-work, radio-waves, hair in the mouth, or "somebody strangling me from behind".

SMALL-DOSE METHOD

A dose of 25 to 75 μg. (1-3 tablets) is given by mouth, on an empty stomach, and the patient is carefully observed as he circulates freely about the ward. This regimen allows for the spread of emotionality throughout the ward community. As well, office-style psychotherapeutic interviews at that time may be enriched as to style, content and emotion.

Chlorpromazine is given to cut short unproductive excitement or, at bedtime, to ensure sleep. As a simple guide to dosage 1 mg. of chlorpromazine may be given to counteract 1 μg. LSD.

Treatment may be repeated at three-day intervals or longer. Typically a patient will take several months to integrate, work out and use the material of a single given treatment.

RESULTS

It is my impression that two-thirds of our patients selected for this form of treatment have been helped by it. I have noted evident benefit in cases in which I was not able to, or thought I was not able to, treat the patient psychotherapeutically before LSD became available. It is my further impression that this drug has notable exploratory, explicatory, educational and heuristic value, quite apart from any therapeutic use. We have also used LSD to advantage in the training of postgraduate students and psychiatric nurses.

CONTRAINDICATIONS AND DANGERS

Contraindications to LSD psychotherapy are listed in Table II.

TABLE II.—CONTRAINDICATIONS TO LSD PSYCHOTHERAPY

Absolute:	Any physical condition precluding marked excitement, e.g. cardiovascular disease
Partial:	Pregnancy
	Epilepsy
	Paranoid personality
	Overt psychosis
	Organic-toxic cerebral disorder

As mentioned above, a psychosis was precipitated (paranoid type in each instance) in four out of the 150 patients who received this form of treatment. The psychosis was terminated in each case by electroconvulsive therapy. Two of these four patients had had previous spontaneous psychotic episodes. Several other patients who had previously been psychotic experienced no re-precipitation of their psychotic state by LSD therapy.

LSD may provoke epileptic seizures in persons predisposed to this disorder. We observed one instance in which status epilepticus was provoked by LSD in a known epileptic patient who was not taking anticonvulsants at the time of treatment.

In our hands the suicidal-homicidal and other antisocial acting-out risk has not been increased. We have encountered one suicide and one sudden death, cause unknown, in our series of patients. Each of these occurred several weeks after an LSD experience. This experience is not out of line with ordinary suicide risk in a comparable group of patients not subjected to this form of treatment. We know of at least nine serious suicidal attempts made by patients in this particular group, before LSD therapy was instituted.

SUMMARY

The clinical effects, indications, contraindications, methods of treatment, dangers and results observed in our experience with 150 patients with functional psychiatric disorders treated by LSD psychotherapeutic techniques at the Toronto Western Hospital are discussed.

We wish to acknowledge the helpfulness of Dr. K. Royal Stewart, Medical Director of Sandoz Pharmaceutical Co.

REFERENCES

1. ROTHLIN, E.: *J. Pharm. Pharmacol.*, 9: 569, 1957.
2. WIKLER, A.: The relation of psychiatry to pharmacology. Williams & Wilkins Company, Baltimore, 1957, pp. 20, 115, 197, 261.

PAGES OUT OF THE PAST: FROM THE JOURNAL OF FIFTY YEARS AGO

OTHER DAYS—OTHER VOICES

At the time of the International Medical Congress last year, a London paper in an editorial on "Our friend the doctor" expressed a layman's point of view in these appreciative words: "The discoveries of Lister, Pasteur, Metchnikoff and Ross—to name only a few—constitute an epic worthy of a Homer. The slow dragging of her secrets from nature, the discovery of the thousand unsuspected agents through which she works, is a fascinating study to those who understand it. The laboratory is the arsenal from which the hand of the physician and surgeon is armed. But it is the wise, experienced, tender man, the first to be called, and the last, too often, to be paid, of whom we common folk are thinking when we speak of 'the doctor'."—H. B. Anderson, *Canad. Med. Ass. J.*, 4: 1037, 1914.