Delysid

BY SANDOZ

LSD_{25}
D-lysergic acid diethylamide tartrate

Sandoz Products Ltd

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Delysid is D-lysergic acid diethylamide (LSD_{25}), first prepared by Stoll and Hofmann in 1938 during the course of original work in the Sandoz Research Laboratories on the natural and semi-synthetic derivatives of lysergic acid; the common nucleus of all ergot alkaloids. It was not until 1943 that Hofmann observed the profound psychotomimetic effects following ingestion of this compound. The first systematic study of the clinical effects of Delysid was carried out in the University Psychiatric Clinic in Zürich in 1947.

The discovery of LSD_{25} stimulated research into the basic physiology of the nervous system and into the aetiology of mental disease. It opened up new fields of investigation into animal and human behaviour patterns and facilitated the treatment of severe neuroses.

Properties

In minute doses (0.5 to 2 mcg./kg. body-weight) Delysid produces changes in emotional behaviour, hallucinations, depersonalization, and reliving of repressed memories. Autonomic disturbances such as dilatation of the pupil, rise in blood sugar, and elevation of the body temperature, may be experienced.

There may be considerable individual variation, but the onset of action of Delysid usually occurs within 15 to 60 minutes of administration, the maximum reaction taking place 2 to 4 hours later. The effects of Delysid generally pass off within 24 hours, but in some instances they may recur intermittently during the following week, and therefore adequate supervision is advisable.

Indications and Dosage

Psychoneuroses

Delysid is used in analytical psychotherapy to elicit release of repressed material and to provide mental relaxation, particularly in anxiety states and obsessional neuroses.

The average initial dose is 25 mcg. increased at each treatment by 20 to 25 mcg. until the optimum reaction is obtained. The dose required varies widely from patient to patient. In individual cases as much as 300 to 400 mcg. may be necessary to induce a full effect.

Some investigators consider that the most satisfactory results are obtained when Delysid is administered once a week. Treatment in a quiet room has been advocated, but of recent years more use has been made of group therapy. There may be no response to the first few treatments and the patient's response to different treatment sessions may be variable. The average number of treatments required varies from 7 to 10 in less severe cases, up to 14 or 15 in more severe cases. In certain cases, more than 40 treatments have been necessary.

There may be delayed reactions or summation of effect in some cases. *Proper psychiatric supervision is, therefore, essential.*

Psychoses

Delysid intensifies the reactions of psychotic patients, and useful information can be obtained by its use in selected patients. In certain forms of psychosis, particularly schizophrenia, and in chronic alcoholism, high doses may be necessary to produce the typical response to Delysid.

The dose for these patients may be from 2 to 4 mcg. per kg. bodyweight.

Psychopharmacology

By giving Delysid to normal subjects, model psychoses of short duration can be induced. This enables psychiatrists to study certain psychotic phenomena, and gain an insight into the world of ideas and sensations of mental patients. In normal subjects, a dose of 25 to 75 mcg. is usually sufficient to produce a typical response (on an average 1 mcg./kg. bodyweight).

Administration

Before oral administration, the required dose should be diluted with about 30 ml. (1 fl. oz.) of distilled water.

Delysid may be given by subcutaneous, intramuscular or intravenous injection. For intravenous use, the required dose should be diluted in 5 to 10 ml. water for injection. Parenteral administration does not offer any obvious advantages over oral administration, except that the action occurs more rapidly.

Termination of the LSD experience

The LSD experience may be terminated by the administration of phenothiazine tranquillisers or short-acting barbiturates, either by mouth or by injection. Some investigators administer these inhibitory drugs prophylactically to prevent recurrence of the experience. Other substances which have been suggested for this purpose include azocyclonal, succinic acid and nicotinic acid.

Precautions

Caution is recommended in treating patients in whom a psychotic state appears imminent. Very rarely in such patients a psychotic episode may result after treatment with Delysid. These psychotic episodes may be controlled with large doses of barbiturates. More troublesome are the possible after-effects, which may be manifested in the form of severe depressive states which occasionally can lead to suicidal ideas. Due precaution should, therefore, be taken. Delysid should only be administered to patients in hospital, and under strict medical supervision.

Stability

Unopened ampoules of Delysid are stable over long periods if protected from light. Once opened, the contents will show considerable deterioration within 24 hours unless stored at 0°C and in the dark. Free halogen ions, Cl^- and Br^-, cause immediate decomposition. Delysid should, therefore, *always* be diluted with distilled water.

When diluted for use, Delysid should be used at once to ensure maximum potency.

Presentation and Packing

Delysid is available in ampoules containing 100 mcg. (0.1 mg.) D-lysergic acid diethylamide tartrate in 1 ml. of sterile aqueous solution, in boxes of 12 and 100.

Supplies of Delysid are restricted to qualified psychiatrists for use in mental hospitals or psychiatric clinics

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