

Acute Adverse Reactions to LSD in Clinical and Experimental Use in the United Kingdom

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It is well recognized that LSD (lysergide) can give serious adverse reactions, including suicide and prolonged psychosis; Smart and Bateman (1967) have reviewed the subject thoroughly. However, examples reported refer largely to cases where the LSD was self-administered. Medical case reports usually cover small case numbers, and publication may be determined by high adverse reaction rates. There has been no methodical survey of the pooled experience of psychiatrists since Cohen's study in 1960. This reported 44 replies sent out to 62 American investigators who had published papers or whose work was known to the author. Replies covered 5,000 subjects with 25,000 LSD or mescaline sessions. In this series, there were only two suicides that Cohen regarded as directly related to the LSD, and there were psychotic reactions (lasting more than 48 hours) at a rate of 0.8 per 1,000 experimental subjects and 1.8 per 1000 patients. It is unfortunate that one-third of the investigators failed to reply to Cohen's questionnaire.

LSD has been in use in psychotherapy in this country since the mid 1950s. It was thought that a simple survey of the adverse reactions encountered in the medical use of the drug here might contribute to policy making. Accordingly, in December 1968, with support from the Institute for the Study of Drug Dependence, a letter and questionnaire were sent to all doctors known to have used LSD on human subjects in the United Kingdom. Respondents were asked to fill in the questionnaire from records or from recollection as far as they were able and return it with the names of any colleagues known not to have received a questionnaire.

In all there were 74 possible respondents; data for 73 of these are presented here. The Marlborough Day Hospital's case records were analysed and the Hospital was treated as if a single respondent. In a substantial proportion of cases correspondence and/or telephone calls were undertaken to sort out queries. There was only one non-respondent, a clinical psychologist who used LSD in the 1950s and has since gone abroad and is untraceable.

NUMBERS TREATED

Thirty respondents gave an exact figure for cases or experimental subjects involved. Only a few thought their margin of error might be more than 10 per cent in either direction. The figures below treat all replies together. The data cover some 4,300 patients given a total of 49,000 LSD sessions (figures rounded), and 170 experimental subjects given a total of 450 LSD sessions. Cohen's survey replies appear to have been divided fairly equally between patients and experimental subjects. In terms of experimental subjects, therefore, this survey is much smaller, but for clinical work it is nearly double the numbers. Further, it encompasses a virtually complete response.

PRESENT PRACTICE

Forty-one clinicians were still using LSD. Of those who had discontinued its use, 5 gave as their main reason that they felt it was too dangerous; 9 had given it up because they found it ineffective clinically; and 11 had stopped for extraneous reasons such as retirement. The majority of respondents took pains to emphasize that intensive supervision of the patient whilst under LSD was necessary, and that great care in the selection of suitable patients was essential: it was not, however, possible, on their replies, to recognize any common criteria for case selection.

ADVERSE REACTIONS

Three suicides that appeared to have a temporal relationship to LSD were reported; it is, of course, not possible to assess to what extent the relationship was causal. The first was a young psychotic who discharged himself from hospital. The second was a woman in her late 20s with a long history of an atypical manic-depressive illness. The third was a man aged 40 with a long-standing character disorder accompanied by work difficulty and neurotic depression.

There were 9 cases of attempted suicide, which from the reports would appear to come under Stengel's 1958 Category 2 'serious attempts'. There were 11 further cases on which the data are insuffi-

cient to categorize them; some of these may have been 'serious attempts'.

Thirty-seven cases of psychoses were reported in this series. In 8 the details are unknown; 10 appeared to be chronic and failed to recover. (In some cases the clinician's opinion was that these were potential psychotics who would have succumbed anyway.) The remaining 19 cases recovered completely: 7 had a duration over 3 months; 3 resolved between 2 weeks and 3 months; 9 cleared within 14 days.

There were two deaths. The first, a neurotic asthmatic male aged 21 died of an acute asthma attack twelve hours after his third LSD session (dose 100 microgrammes). The second, a male experimental subject aged 41, deeply interested in 'psychic research', died suddenly and inexplicably during his seventh LSD session (dose 200 microgrammes). Autopsy showed no organic abnormality. One middle-aged male had a minor coronary thrombosis during an LSD session, and two others had symptoms of coronary spasm, with normal electrocardiograms. Three subjects sustained superficial injuries, cuts from glass etc. as a result of panics during their LSD sessions. One male with no previous epileptic history had a grand mal attack during a session. (Note: several clinicians reported having treated known epileptics with LSD without ill effects.)

CHILDREN BORN TO LSD SUBJECTS

Only 27 respondents had any knowledge at all of children born to LSD subjects or patients. Ninety normal children were reported; one child was reported to have 'behaviour disorders and a speech defect' though there is no indication whether or not this might have had an organic basis.

DOSAGE

The reported dosage ranged from 25 to 1,500 microgrammes; in the great majority it was from 100 to 200 microgrammes. There did not seem to be any relationship between any of the acute hazards reported and the dosage of LSD received by the

patient. Two of the three suicides received respectively the smallest and the largest dose reported in the series. There was no clear relationship between the number of LSD sessions given and the onset of acute adverse reactions. In a few cases it came after the first session, and in one instance after the 60th. In the majority of cases it fell between the 5th and 10th sessions. Clinicians with the shorter series of cases reported a larger proportion of acute adverse reactions. In particular the four hospitals with the greatest experience of work with LSD (Marlborough Day Hospital, 507 patients, 6,572 sessions; Powick, 683 cases, 13,785 sessions; Roffey Park, 300 patients, 2,400 sessions; Clifton Hospital, 250 cases, 500 sessions); reported less than the average proportion of adverse reactions.

CONCLUSION

This survey of United Kingdom experience with LSD in clinical work covers some 4,300 subjects with a total of some 49,500 LSD sessions. There was an attendant suicide rate of 0.7 per 1,000 patients, a rate of 9 per 1,000 patients for psychosis lasting for more than 48 hours (from which some two-thirds recovered fully), and an accident rate of 2.3 per 1,000 patients. The survey is not one that permits clear comparison with other forms of psychiatric treatment, but the following conclusion is probably justified: treatment with LSD does give rise to acute adverse reactions, but if there is adequate psychiatric supervision and proper conditions for its administration the incidence of such reactions is not great.

REFERENCES

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The full report of the survey (mimeographed) is available from the author.

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