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ATTEMPTED BLOCKING OF LSD REACTION BY  
PRETREATMENT WITH BOL

Purpose: To determine if three days pretreatment with BOL would attenuate the LSD reaction.

Background: Ginzel and Mayer-Gross have reported that two days pretreatment with 3 mg. of BOL, plus an additional 1 mg. on the day of the test, attenuated or completely blocked the reaction induced by small doses (40 to 50 mcgm.) of LSD. We attempted to reproduce their experiments, using doses of 1-1.5 mcgm. of LSD, but could show no significant blocking. Four of the 8 patients used, however, had very minor reactions to LSD. The experiment, therefore, was repeated using larger doses of LSD in order to insure a fairly marked degree of reaction.

METHODS

Subjects: Ten Negro male postaddicts, all of whom had been abstinent from opiates for at least six months, volunteered as subjects for the experiment, all were in good mental and physical condition, and all had experienced LSD-effects previously.

Drugs: Drugs were all given in solution. One mg. of BOL was administered at 8 a.m. and 6 p.m. for three days prior to the LSD. On the morning of the test 1 mg. of BOL was given at

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6 o'clock, and LSD was given at 8 o'clock. The dose of LSD was 1.5 to 3 mcgm./kg. LSD doses were chosen so as to induce at least a "Grade 3" reaction (hallucinations in all subjects).

Designs A randomized double-blind design was used. Each patient received the following treatments: (1) BOL placebo plus LSD, and (2) BOL plus LSD. The combinations of BOL placebo plus LSD placebo, and BOL plus LSD placebo were not studied, partly because of shortage of material and partly because previous experiments have shown that only inconsequential effects would be expected.

Observations: Kneejerks were assessed by determining the angle through which a calibrated hammer must fall in order to elicit barely perceptible kneejerks. Systolic blood pressure was measured by auscultatory method. Pupillary diameter was measured in a dark room under constant conditions of light and accommodations. These observations were obtained twice before and at intervals of 1, 2-1/2, 4, 5-1/2, and 7 hours after LSD.

A modification of the Abramson-Jarvik questionnaire was administered by the aide twice before and at 1/2, 1-1/2, 3, 4-1/2, 6, and 8 hours after LSD. "Clinical grades" were assigned on the basis of short mental status examination performed at intervals after LSD.

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Analysis of Data: Areas of the time-action curve were calculated in the usual way and means and standard errors extracted from the raw data. Questions were counted, eliminating any answers that were also reported positive prior to administration of LSD.

Results: Results are shown in the table. There appears to be a slight trend toward the reduction of all aspects of the LSD-reaction. The differences, however, are slight and not significant, all being well within the error of measurement.

Conclusion: It was concluded that administration of 2 mg. of BOL daily for three days prior to administration of the LSD will not block the response to 1.5 to 3 mcgm./kg. of LSD.

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ATTEMPTED BLOCKING OF THE LSD REACTION BY THREE DAYS  
 PRETREATMENT WITH 1 MG. OF BGL TWICE DAILY

MEASURE	BGL PLACEBO & LSD	BGL + LSD
Patellar Reflex	4.34 $\pm$ 0.3	4.48 $\pm$ 0.46
Pupillary Size	9.47 $\pm$ 0.53	7.61 $\pm$ 1.06
Systolic Blood Pressure	5.89 $\pm$ 0.79	4.38 $\pm$ 0.39
Number of Positive Answers	76 $\pm$ 11	62 $\pm$ 13
Grade	2.7 $\pm$ 0.21	2.4 $\pm$ 0.26

Figures are means on 10 subjects  $\pm$  standard errors.

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