Medical School, who wrote, "I agree 100% with your diagnosis of anorexia nervosa. The girl is emaciated, feels guilty about eating, and mentioned that she would just as soon starve herself to death; i.e., she is suicidally depressed. My own feeling is that there is no alternative to EST as a life-saving maneuver, since I believe this situation will result in her death if shock therapy is not used. I do not know of any other therapy which would offer the likelihood of giving her real help. Through many years of experience, I have developed a tremendous respect for this curious disease and I have seen a good many of these young people come to autopsy. In any event, my vote unequivocally is for EST." EST was re-instituted. After 6, her weight was 110 pounds and she was eating heartily. At this time, mercuhydrin was administered because of edema, and her weight dropped to 104 pounds. The fantastic change in her appearance in a matter of a few days can be seen in the accompanying photographs. She was discharged on March 11, 1962, after 21 EST's, weighing 114 pounds.

She was subsequently given outpatient EST, first on a once-weekly basis, and then biweekly until July 8, 1962. About this time, her first menstrual period in over 3 years appeared and then became regular. She moved away from her parents to California, got a job, and subsequently married, became pregnant, and expects to deliver in December, 1963. The pregnancy has been complicated by numerous psychosomatic problems, including nausea and vomiting, and neurodermatitis. These have been relatively minor, and have not required hospitalization or definitive psychiatric care.

SUICIDE FOLLOWING MORNING GLORY SEED INGESTION

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During the past year the information that two species of morning glory seeds are hallucinogenic has become generally available to both scientific and lay groups in this country. The species are Rivea corymbosa and Impomoea violacea (or versicolor). In gardeners' catalogues they are designated with the euphonious names Heavenly Blue and Pearly Gates. The morning glory is a member of the large bindweed family, the Convolvulaceae.

The mind-altering properties of the black seeds of the wild tropical morning glory have been known to the Indians of southeastern Mexico for centuries. They called them ololiuqui and have employed them in a semi-religious setting. In 1960 Hofmann (1) extracted ololiuqui seeds and found that they contained at least 6 compounds, of which d-lysergic acid amide, d-isolysergic acid amide, lysergol, elymoclavin and chanoclavin have been identified. The first two, related to the better known d-lysergic acid diethylamide (LSD-25), are probably responsible for the hallucinogenic activity.

Hofmann's discovery that ergot alkaloids hitherto found only in fungi were present in the much higher genus of bindweeds was very interesting from a phytochemical point of view. The information that a hallucinogen was readily available in feed and seed stores eventually became known to venturesome individuals who proceeded to perform self-experiments without supervision. The results of these casual ingestions of a psychochemical whose properties were not well studied varied considerably. Some individuals appeared to have no reaction whatsoever, others obtained a full blown LSD-like response. Side effects were rather frequent, nausea, vomiting, diarrhea, drowsiness, numbness of the extremities and muscle tightness have been described. A number of the adverse effects may be due to an insectide coating on the seeds, others may be intrinsic in the morning glory alkaloids, some of which have had insufficient pharmacologic scrutiny.

A warning of the dangers of ingestion of
morning glory seeds under unsupervised conditions without proper safeguards has been published (2). The danger of panic states, prolonged dissociative reactions and schizophrenic breakdowns was mentioned. Recently, an instance of a suicide apparently due to morning glory seed usage has occurred.

A 24-year-old university student chewed 300 Heavenly Blue seeds (equivalent to 200-300 mcg. of LSD-25) in his home and had a full blown hallucinogenic experience. This consisted of depersonalization, vivid visual and tactile pseudo-hallucinations, feelings of wonderment and self-transcendence and grandiose fantasies about saving the world. The only physiologic effects were anorexia and nausea. After 8 hours he became alarmed because the drug's action was not wearing off. He took a sedative but the experience apparently persisted for the next 24 hours in diminishing intensity.

For the following 3 weeks he was somewhat exhilarated by the morning glory experience, when without obvious cause, the state recurred. He denied taking additional morning glory seeds or similar substances. Everything that people said had double meanings, his associations were loose and he could not control his thoughts. There was a ringing in the ears similar to the drug intoxication state. He was fearful of going insane and required sedatives for sleep. The dissociative state waxed and waned, at times it would subside altogether, then it would recur. One morning, a week after the recurrence of symptoms, he awoke and was very upset because he was "out of balance again." He dressed, drove his car to a nearby hill, hurtled down at a speed estimated at 90-100 miles an hour and crashed into a house at the bottom.

The recrudescence of psychotomimetic effects weeks or months following the use of LSD-25 and especially mescaline has been documented (3). Apparently, a similar situation is possible during the period after morning glory intoxication. Unless controls are established upon the traffic of this easily obtainable item, additional complications can be anticipated.

BIBLIOGRAPHY