

CAN DRUG DRIVE SCHIZOPHRENICS SANE?

Theory connecting brain enzymes and hallucinations gives clue to therapy

A simple drug can free schizophrenic patients of even their most severe symptoms in a matter of days, according to a Canadian psychiatrist. He claims that preliminary tests of the drug indicate that it alleviates the mental disorder by influencing epinephrine metabolism.

Dr. Abram Hoffer, director of psychiatric research for Saskatchewan's Department of Public Health, says that nicotinamide adenine dinucleotide (NAD) proved extremely effective in tests involving more than 20 schizophrenics. Last December, he started giving 1 gm to 2 gm of NAD

350 patients given this treatment and 450 patients who served as controls.

Because treatment must be continuous to be effective, nicotinic acid therapy cannot be considered a cure. However, the high rate of remission has led a number of psychiatrists to agree that it is worth while for schizophrenia and should be used as standard treatment.

When schizophrenia is treated less than a year after onset, nicotinic acid may produce a complete remission in a few months, with less than a 5% relapse rate, says Dr. Hoffer. Long-term schizophrenia may have to be treated

who had been ill for eight years and had not responded to LSD, psychotherapy, tranquilizers, antitension compounds, or shock therapy. Three days after NAD was begun, she had almost completely recovered. When nicotinamide was substituted for NAD, the symptoms returned in about three weeks. They disappeared again three days after resumption of NAD.

Dr. Hoffer, who is a biochemist as well as a psychiatrist, believes that NAD and nicotinic acid play an important role in the metabolism of epinephrine. Nicotinic acid, he suggests, prevents the oxidation of epinephrine from adrenochrome, which produces hallucinations, anxiety attacks, catatonic states, and lowered levels of consciousness in animals.

In man, pellagra and alcoholism are good illustrations of the part played by nicotinic acid in epinephrine metabolism and of the vitamin's relation to hallucinations. In pellagra, the Canadian researcher points out, too little vitamin is present in the diet, while in alcoholism the excessive consumption of alcohol can deplete the body's store of the vitamin.

Schizophrenic patients with a deficiency in NAD synthesis can be helped by massive doses of nicotinic acid, unless the deficiency is really severe. Precursors of NAD and tranquilizers that sustain NAD levels could be useful adjuncts to treatment, Dr. Hoffer observes. On the other hand, euphorants and anxiety-producing substances should be avoided, since a state of euphoria is "only a shade below hallucinations."

Only two of the patients who took the experimental drug failed to improve, says the Saskatchewan scientist. Three other patients suffered relapse when supplies of the drug ran out. These cases provide further proof of the drug's success, Dr. Hoffer suggests. While he concedes that tests have been run on very few patients so far, he emphasizes that the results achieved have been impressive. ■

Excessive aminochromes inhibit synaptic transmission, which is expressed psychologically as disturbances in perception, thought, and mood. Schizophrenia is a hallucinatory state due to a similar mechanism.

Psychiatrist Abram Hoffer

daily to a group of patients who had severe schizophrenic symptoms. In most of them, he reports, the response to the experimental drug was "prompt and dramatic."

Before NAD, made by a U.S. firm, Enzomedic Laboratories, was available to the Canadian psychiatrist for testing, he had treated schizophrenics with 3 gm a day of nicotinic acid or nicotinamide over a 13-year period. The ten-year remission rate caused by this therapy is well over 75%, as compared with 30% for patients "who have not received this simple, safe, and effective chemical.

"I am convinced that the therapy of choice for schizophrenia must include nicotinic acid," Dr. Hoffer told a symposium on Enzymes in Mental Health in New York City. What convinced him was three double-blind studies, detailed investigations of large numbers of chronic, so-called hopeless cases, and comparisons between over

for many years, but relapses are rare.

All that nicotinic acid does to help schizophrenics is done by NAD, but much faster and with much smaller doses, according to the Saskatoon specialist. One gram a day does not cause the side effects of nicotinic acid, since NAD is not a vasodilator.

One of the most intractable patients, who had been hospitalized for about 30 years, had responded only slightly to huge doses of chlorpromazine. The tranquilizer had to be discontinued about a year ago, when hyperpigmentation developed. Dr. Hoffer substituted nicotinic acid and ascorbic acid combined with penicillamine, which helped reduce the pigmentation but had little effect on the schizophrenia. After two weeks of treatment with 1 gm daily of NAD, the patient was able to contact relatives and leave the hospital.

The Canadian psychiatrist describes another schizophrenic patient