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# NEWS

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\*\*\*\*\*Doctors say hypoglycemia being misdiagnosed by patients and their physicians.

DALLAS--Diagnosed in epidemic proportions, hypoglycemia (low blood sugar) has been blamed for the outcome in Vietnam, jetliner crashes, headhunting among primitive tribes, the soaring divorce rate, drug abuse, street crime and mental illness.

But two professors of internal medicine at Southwestern Medical School, Drs. Dan Foster and Leonard Madison, say things have gotten out of hand. And the two are critical of doctors who profit by keeping the "non-hypoglycemic" patient coming back for costly treatments.

While non-hypoglycemia is sometimes called the "hypochondriac's disease," true reactive hypoglycemia is an uncommon condition with common symptoms. In its milder stages reactive hypoglycemia is characterized by sweating, tremor, rapid heart beat, anxiety and hunger. Foster says it's the feeling you get when you realize a train almost hit you.

Foster and Madison attribute much of the confusion to faulty diagnostic procedures, primarily the five-hour oral glucose tolerance test commonly and incorrectly used to detect the disease. The test involves drinking a large dose of glucose solution (glucose is the chemical name for the natural sugar in blood) on an empty stomach and then having blood drawn every hour over a five-hour period to test glucose concentration in the blood.

The problem is that perfectly normal, asymptomatic people may have a classical hypoglycemic reaction to the test--that is their blood sugar concentration falls to low levels and they may develop the symptoms mentioned above. A hypoglycemic response to the glucose tolerance test is a natural response to a high dose of glucose, and low blood sugar during the test does not indicate the presence of a disease, according to both doctors.

"If you use the glucose tolerance test to detect the disease, then a large percentage of mankind will be diagnosed as hypoglycemic," says Madison, who along with Foster is a recognized authority on body metabolism.

Says Foster, "Many taking the glucose tolerance test believe they have the disease before the test. Therefore it becomes a self-fulfilling prophecy."

Reactive hypoglycemia should be diagnosed only after eating normal, balanced meals, according to the doctors. Blood should be taken at the height of the patients' symptoms and tested for low blood sugar levels. But both doctors have found that patients tested under these conditions rarely have the disease, even though they are experiencing the symptoms. This is because hypoglycemic symptoms are nonspecific and at times identical to acute anxiety.

"It's of interest that most patients with 'non-hypoglycemia' are women, for reasons that are not clear," says Foster.

"Anxiety attack" symptoms in the reactive hypoglycemic and non-hypoglycemic alike are due to the release of the hormone epinephrine from the adrenal gland. In the hypoglycemic the excess of epinephrine is caused by low blood sugar while in the non-hypoglycemic the epinephrine discharge is the result of emotional stress.

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first add hypoglycemia

Madison and Foster have both noted that most non-hypoglycemics who are convinced they have hypoglycemia want to blame their symptoms on a disease rather than on anxiety and stress. And the doctors have also observed that many of these non-hypoglycemics will keep searching until they find a doctor who will tell them they have the disease.

Foster explains that as hypoglycemia progresses in severity, it begins to involve the central nervous system and another set of symptoms occurs--dizziness, headache, clouding of vision, blunted mental acuity, confusion, abnormal behavior, convulsions and loss of consciousness. These symptoms may also be experienced by the non-hypoglycemic for a variety of medical reasons, but these symptoms are not as common as are those associated with epinephrine.

Patients misdiagnosed as having hypoglycemia are often put on restrictive diets that are high in protein and fat and low in carbohydrates. And they are often told to eat six meals a day. Foster says that many non-hypoglycemic patients do feel better on this diet, but attributes most of this improvement to a placebo effect.

"There's nothing wrong with using placebos as long as the doctor doesn't believe his own magic," says Foster. He says that when well patients come to him complaining of hypoglycemia he will sometimes suggest they try the diet.

"If you feel better on a diet, then follow that diet," he says. "It is possible that some future evidence will show that such a diet will give benefits we don't know about.

"A doctor ought to treat patients who believe they have something wrong with them," Foster says. "But what I object to are doctors who keep the non-hypoglycemic patients coming back for costly injections, hair analysis, megavitamins and other gimmicks to make money."

Many who say that hypoglycemia is commonplace also say that the high protein diet will control the hypoglycemic's abnormal insulin-making response to sugar. They say that by limiting carbohydrates (which include sugars and starches) an excessive insulin release can be blunted. Insulin, they say, is responsible for the bizarre symptoms associated with reactive hypoglycemia.

Madison, however, points to recent studies which show that insulin is not present in excessive amounts in reactive hypoglycemia. And that the magnitude and duration of insulin secretion is similar in the reactive hypoglycemic patient and in normal control subjects.

Madison adds that hypoglycemic symptoms can be induced in the non-hypoglycemic who adheres to a low carbohydrate diet and then goes on a carbohydrate eating binge. "This fact is especially important for those who have been inaccurately diagnosed or who have made a self-diagnosis of hypoglycemia. A carbohydrate binge while on a very low carbohydrate diet might produce hypoglycemic symptoms and therefore reinforce the misdiagnosis in the person's mind and in the physician's mind," says Madison.

He says that the most important point to remember is that the five-hour oral glucose tolerance test should never be used to establish the diagnosis of reactive hypoglycemia.

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