Medical Xpress

Researcher tests drug's impact on neurological disease affecting women

June 7 2011

A rare but increasingly more common disease striking overweight, younger women is the focus of a clinical trial at Michigan State University, where an osteopathic physician is testing the effectiveness of a certain drug against a potentially blindness-causing ailment.

Idiopathic intracranial hypertension, known as IIH or pseudo-tumor cerebri, is a neurological disease resulting in increased pressure around the brain, specifically in the absence of a tumor. Symptoms include severe headaches, nausea and double vision, and if left untreated, IIH can lead to vision loss and blindness.

Eric Eggenberger, professor and associate chairperson in MSU's Department of Neurology and Ophthalmology, is leading a clinical trial to test the ability of a commonly used diuretic known as acetazolamide in reducing or reversing vision loss in patients with IIH. Diuretics are drugs that increase the rate of urination.

"While weight loss is always recommended for women suffering from IIH, many other treatments are used to battle the disease by decreasing pressure around the brain," said Eggenberger, a member of MSU's HealthTeam.

"The problem is, none of these strategies have been verified by clinical trials, and there is no compelling evidence on which treatments work best and why."

In addition, he said, more evidence is needed on the potential side effects of drugs such as acetazolamide.

Though IIH is rather rare, affecting only 22 out of every 100,000 Americans, its incidence rate is rising in parallel with the obesity epidemic sweeping the nation. The cause of the endocrine-based disease is not known, but it usually affects women of child-bearing age who are overweight or obese. It is rare in post-menopausal women and men of all ages.

The clinical trial run by Eggenberger at MSU has three main goals: establish evidence-based treatment strategies to restore and protect vision, follow patients for up to four years to observe long-term treatment outcomes and help determine the cause of IIH.

All patients in the trial will receive Web- and phone-based diet information to help subjects lose weight. The study also will randomly assign patients to one of two groups: those receiving acetazolamide and those receiving a placebo. Patients will be monitored for six months to test the impact of the drug.

Subjects also will undergo genetic screening, specifically looking at vitamin A and genes that may be risk factors for IIH. That analysis could help researchers with the frustrating task of pinpointing what causes the disease, Eggenberger said.

Provided by Michigan State University