

MEDICINE

Two Drugs Found Which Cure Horrible Disease of Weakness

Bedridden Woman Medical Student Discovers Value of Ephedrine in Effort to Cure Herself

NEW STRENGTH and health for victims of a horrible disease of killing weakness has been found in two drugs, ephedrine and glycine.

The discovery of ephedrine as a cure for the disease was made by Dr. Harriet Edgeworth of Chicago, who was herself attacked by it while a student in medical school. Members of the staff of the Mayo Clinic, who have been using both medicines successfully in treating the ailment, heard Dr. Edgeworth tell her own story.

Three years ago Dr. Edgeworth was bedridden, entirely helpless, dependent on the constant aid of nurses, scarcely able to swallow. Then she discovered, accidentally, that ephedrine gave her renewed strength. Daily doses of six-eighths of a grain of this drug, familiar to hayfever and asthma sufferers, now enables her to "live a life of some usefulness which is comparatively comfortable and pleasant."

"I am dependent on a maid only for dressing, bathing and combing my hair," she told the physicians. "I work about the house, sew, read, write at will, and can get into and out of a car with a little help."

The discovery of the value of ephedrine in her case was dramatic. For over five years she had suffered from the disease, gradually getting weaker and weaker. Different treatments were constantly tried by her physicians.

Disagrees With Physician

One of these, a serum treatment, caused a severe reaction. To help her recover from the effects of the serum, ephedrine and epinephrine were given her. She noted a return of strength almost immediately. Within two days she was able, for the first time in months, to sit up in a chair and to eat solid food. While she suspected the ephedrine, her physician ascribed her improvement to the serum treatment.

When she stopped taking the ephedrine, she relapsed to her former state. More serum treatments did not help.

Then she insisted on trying the ephedrine again, and from repeated trials, she found that it really did help her.

The ailment from which she suffered is known by the Latin name of *Myasthenia gravis*. It is fortunately not very common. The patient first notices that he is getting very tired. He sees double. Then his jaw muscles become too weak to chew and before long he is so weak he cannot turn over in bed. No cause has been found for the disease.

Knowledge From Germany

At about the time Dr. Edgeworth was discovering the value of ephedrine in treating her own case of this disease, physicians on the staff of the Mayo Clinic learned from a German scientist, Prof. Karl Thomas of the University of Leipzig, Germany, that glycine, a constituent of many proteins, was useful in treating a similar condition in children in which the muscles waste away. There is, curiously enough, no wasting of the muscles in *Myasthenia gravis*. While they did not find the new drug very helpful to the children, the Mayo Clinic physicians decided to try it in cases of *Myasthenia gravis*. These patients were

greatly helped by glycine. When Dr. Edgeworth reported her use of ephedrine, the Mayo Clinic patients were given that drug in addition to glycine, with additional improvement.

Investigations are now under way to discover what are the best doses of the two drugs; whether or not they may be used to diagnose cases in the early puzzling stages of the disease; and how they act to overcome the disease. From this may come knowledge of what causes the condition. The members of the Mayo Clinic staff engaged in these studies are: Drs. W. M. Boothby, Mildred Adams, M. H. Power, F. P. Moersch, H. W. Woltman, and R. M. Wilder.

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GEOLOGY

Waterfall Restored With Photograph and Paints

RESTORATIONS of long-extinct animal species are often made by skilled artist-paleontologists, who cause flesh and skin to reappear on stony fossil bones, with all the assurance of the Vision of Ezekiel. But it has remained for an artist-photographer of Portland, Asahel Curtis, to restore the living water that once thundered over the cliffs of the Grand Coulee in Oregon, making it earth's mightiest cataract, dwarfing Niagara a dozen times over. (*SNL*, Aug. 13, '32, p. 95). He simply photographed the dry cliffs as they stand, and then painted in the long-vanished curtains of plunging water.

The combined painting-photograph is reproduced herewith.

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EARTH'S MIGHTIEST WATERFALL RESURRECTED