MEDICINE

Hardening of Brain Arteries Found Factor in Epilepsy

HARDENING of the arteries of the brain may cause epileptic attacks, Dr. Alfred Gordon of Philadelphia has reported to the American Psychiatric Association.

The exact cause of epilepsy has not been determined, in spite of extensive scientific study. Many factors seem to be involved. These are chemical, physiological, anatomical, psychological and even hereditary, it appears.

Seeking an organic basis for the development of the disease, Dr. Gordon examined the brains of patients who had suffered from arteriosclerosis, or hardening of the arteries as it is popularly known. These victims had also suffered from typical epileptic seizures after they had reached an advanced age, when the arteriosclerosis might have already developed, a study of the patients' histories showed.

Brain Membrane Thickened

In twelve such cases, the brains showed not only hardening of the arteries but inflammation and thickening of the membrane that covers the brain. The patients during their lives had all suffered from high blood pressure, headaches, dizzy spells, occasional epileptic attacks and transient attacks of paralysis of one or both sides which always completely cleared up.

The epileptic attacks could be considered as signs of a progressive material damage to the brain, in Dr. Gordon's opinion. This damage was produced by the sclerotic changes of the blood vessels in the brain. The seizure itself might be due to temporary lack of blood resulting from a spasm of the arteries, which is a common occurrence in arteriosclerosis. Or it might be due to a sudden flare-up of the inflammation of the membranes seen in the post mortem examinations.

Not Always

Dr. Gordon emphasized that he does not consider the organic damage to the brain the only cause of epilepsy. Nor does arteriosclerosis always lead to epilepsy, he pointed out, citing many cases of the former disease in which the patients never suffered attacks.

Another factor such as hereditary weakness or predisposition probably is present when the brain damage occurs that results in epileptic seizures, he suggested.

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PALEONTOLOGY

New Fossils May Represent Ancestors of Jellyfish

FOSSILS of an animal type described as a "floating hydrozoan," discovered in 500,000,000-year-old Early Cambrian rocks near Lancaster, Pa., by Dr. H. Justin Roddy, curator of the museum of Franklin and Marshall College, are believed to be close to the primitive ancestral stock from which was derived the great modern family of sea-dwelling animals that includes the corals, jellyfishes, sea-anemones and the Portuguese man-of-war. This family represents the third step from the bottom on the evolutionary ladder, with only the sponges and the protozoa below it.

It has long been assumed that these lowly creatures must have come into the world at an early geological date, but because most of the members of this family, especially the free-living, floating forms, have no limy skeletons or other hard parts that easily form fossils, very early rocks that show other life remains have hitherto failed to yield any traces of its members. Even the present fossils contain no part of the original animals, but consist entirely of imprints between thin layers of stone; these, however, are so perfect that their nature is quite evident. Similar fossils recently found in Poland join these American specimens in testifying to the existence of the family half a billion years ago.

Most of the present-day relatives of this ancient fossil line spend their lives rooted to one spot, and some of these, notably the corals, have in later ages picked up the trick of strengthening their skeletons with lime. These ancestral forms had skeletons, but they were composed of the same kind of hard, horny stuff we find in the wings and shells of insects, called chitin.

Dr. Roddy has been sending specimens to the Smithsonian Institution for identification for many years, so he forwarded these fossils. They were identified for the Institution by Dr. Rudolph Ruedemann, State Paleontologist of New York, and are described in a new Smithsonian publication. The fossils constitute a new genus, which has been given the scientific name *Camptostroma,* which englishes, approximately, as "flexible framework."

Science News Letter, July 1, 1933

Dr. J. M. Aldrich of the National Museum tells of collecting species of flies in South Dakota about 1890 which were so rare that none have ever been found since.

The Weather Bureau's flood forecast service spreads its warnings by newspapers, radio, telegraph, telephone, even by messengers on foot or horseback if necessary.

The Milwaukee Zoo serves this dinner to a hippopotamus every day at four o'clock: 25 pounds of chopped alfalfa hay, two pounds carrots, five pounds beets, two pounds onions, 15 pounds bran bread, one pound bran, two pounds apples, half a pound of bananas.