

medical sciences

HEART ATTACKS

Home treatment versus hospital care

If a person can survive a heart attack until a doctor or ambulance can arrive at the scene he has a fair chance of living. And, according to a study reported in the Dec. 14 issue of the *BRITISH MEDICAL JOURNAL*, home care may have advantages over a coronary care unit. The ramifications are substantial.

Dr. R. A. Sleet, a general practitioner in Southampton, England, points out that the trip to the hospital following the stress of waiting for the ambulance and a possible trip down a steep, narrow staircase, can predispose a patient to irregular dangerous heartbeats called arrhythmias, thus contributing to the high death rate seen in the first few hours after admission to hospitals. These are the critical hours.

Twenty-four of the 50 patients studied had died before the doctor arrived or relatives had discovered their deaths, so resuscitation was impossible.

All except two of the 26 survivors were treated at home—a joint decision of family doctor, patient and relatives.

Frequent visits by the doctor and district nurse were necessary in the first few days. Treatment in bed was continued during pain but patients were allowed to use a toilet and leg exercises were encouraged.

BURNS

Treatment with warm air

A specially adapted bed that operates with dry, warm air, being used in the Karolinska Hospital in Stockholm on a trial basis, is expected to prove helpful to seriously burned persons.

The best results have been obtained at a temperature of 84 degrees F., and an air humidity of 30 percent.

In some cases successfully treated, up to 45 percent of the patient's body surface was seriously affected. The warm air absorbs the skin moisture, thus drying up the burn. At the same time it helps to reduce the attacks of feverish shivering that occur.

The warm-air technique also has been applied in skin grafting: While the moisture is evaporating, the absorption of oxygen is reduced and the warm air produces an equalization of the falling body temperature, thus lowering energy production. No difficulties were encountered in maintaining the balance of important fluids in the patient's body.

The researchers believe the procedure could also be applied with advantage in cases of skin disease and in treating road accident victims.

LEAD

Still a controversy

Lead, atomic number 82, is one of the most abundant of the trace elements in the human body, the December issue of *ARCHIVES OF ENVIRONMENTAL HEALTH* points out.

Dr. Henry A. Schroeder of Dartmouth Medical School reports with Dr. Isabel H. Tipton of the University of Tennessee, that exposure to lead in the United States

from all sources is apparently large enough to cause accumulation with age. Automobile exhausts are a major contributor.

One school of thought holds that present exposures are safe, but another viewpoint implies that the present body burden of lead is approximately 100 times the natural levels, and the burden is harmful. Lead is a cumulative poison, and they believe the threshold for adverse effects has been or will soon be exceeded.

Lead is one of the few trace elements that accumulate in the human body with age. A study of 33 cities in the U.S. and foreign countries shows that median amounts of lead are generally higher than in Africa, the Middle East and, in a few cases, in the Far East.

SCHISTOSOMIASIS

Snail disease attacked

Two pharmaceutical companies have joined the World Health Organization in an attack on the snail-borne liver disease, schistosomiasis. Ciba of Basel, Switzerland, and Shell Chemicals Ltd. of Britain have started a pilot project that is being backed by the Swiss Government in Bern.

Scientists are moving into a 2,000-acre portion of southeast Madagascar to apply a theory of British expert Prof. G. A. Macdonald, who died this year. Macdonald was director of the Ross Institute of Tropical Medicine in London, where he constructed a mathematical model of a two-pronged attack on the disease. He believed that sanitation alone could not wipe it out, but by using a drug, Ambilhar, and a chemical called Frescon, the trick could be done in four years.

SEXUAL PRECOCITY

Successful treatment

The case of a Peruvian girl named Lena Medina who was delivered of a normal child by cesarean section when she was five and a half years old is one of the most dramatic proofs that children can be precocious sexually.

Menstruation has been known to occur as early as three months of age, and breast development with other signs of puberty has been reported in girls from five to eight years old. Whatever the cause—advanced bone age, adult levels of estrogen or brain disorders—such children present a serious emotional and social problem, authorities say.

A team of Los Angeles physicians report successful treatment for sexual precocity in girls whose early puberty is due to unknown causes. In the December issue of *AMERICAN JOURNAL OF DISEASES OF CHILDREN*, Dr. Solomon A. Kaplan, with Drs. Shun M. Ling and Nayer G. Irani, review their own research as well as that of other investigators since 1962 who have used the drug MPA (medroxyprogesterone acetate).

"Specifically," they say, "there appears ample reason to recommend its use in girls whose symptoms begin before the age of six years. A recommendation for the use of MPA in boys with precocity cannot be made unequivocally in the light of our experience. Others, as well as ourselves, have treated too few male patients with this disorder."

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