MEDICINE

Disease Without Remedy

There Is No Known Cure for Infantile Paralysis But Proper Treatment Saves Many from Crippling

By JANE STAFFORD

WHEN children do not feel well, complain of headache, have hot, flushed skins indicating fever, and are sick at the stomach, wise parents put them to bed immediately and call a doctor. These symptoms are common in the beginning stages of many serious ailments. At this season, they are likely to make the doctor and the parents think of infantile paralysis, particularly if the child has some stiffness or pain in the back of the neck and is irritable.

In many cases, infantile paralysis may cause no more trouble than this sort of indefinite illness lasting about a week after which the child begins to get well without having had any paralysis at all. Unless there is an epidemic of the disease, these non-paralytic cases may not be recognized for what they are. They may be diagnosed as grippe or an acute intestinal upset.

Paralysis Comes Rapidly

In the serious cases, paralysis of the muscles of legs, arms or other parts of the body appears rather rapidly. The affected parts are limp and motionless. The disease is most dangerous when the breathing muscles are affected and in these cases life is often saved by artificial respiration given by the "iron lung" or similar cabinets which keep the patient breathing until his muscles recover.

This crippling malady is caused by a virus which attacks the gray matter in the nerve tissue that makes up the spinal cord. How the virus gets to the spinal cord is still an unsolved mystery. It may be acquired from both sick people and healthy carriers. The disease usually begins within one to two weeks after exposure. Persons known to have been exposed to the disease should be isolated for 14 days.

No remedy for infantile paralysis has yet been found, but proper treatment saves many patients from serious crippling and deformity. The first part of the treatment is planned to prevent deformity by avoiding strain on the muscles or hunched-up positions of the body. It should be started as early as possible, which is one reason why it is important to call the doctor promptly if the child's symptoms suggest infantile paralysis.

Your first thought, probably, when someone complains of sore muscles, is to offer to rub them. If the person is an infantile paralysis patient, stifle your well-meaning impulse. Nothing is more harmful to the patient and his welfare than such treatment for the deep pain or sensitiveness that may appear about the second week after the fever has subsided. It may come just about the time in the illness when friends and relatives are beginning to visit the patient, and because it may be more pronounced in the non-paralyzed muscles and only come when someone tries to move the patient, the solicitous friend, relative or attendant is all the more likely to think, quite wrongly, that a little rubbing or massage will help.

There is no place for amateurs in the treatment of infantile paralysis. The family physician himself knows that expert aid is needed and will call on the services of a specialist, if possible, as soon as he has made the diagnosis. In small towns where there are no specialists, he will be able to get advice and help from the National Foundation for Infantile Paralysis which is prepared to supply inexpensive, simple splints and other kinds of aid on very short notice.

Eight Weeks in Bed

Infantile paralysis patients must be kept in bed for at least eight weeks. The bed must have a hard mattress. A plywood board as wide as the bed and a foot shorter may be put under the mattress to prevent sagging. The bed covers and sheets should be arranged so they do not press on the feet and cause foot drop. The child should be kept on a sheet of heavy canvas attached to a rectangular frame of gas pipe. This is called a Bradford frame, and arm splints may be attached to it easily.

During the acute stage of the illness, which lasts until all muscle tenderness has gone, the treatment consists mainly of rest, splints to prevent deformities, and hot packs to relieve pain. Let the doctor prescribe these.

After the acute stage, massage and exercise are used to restore the muscles to usefulness. The details of this treatment will need to be different in every case because no two patients are affected by the disease in exactly the same way.

Next time you read or hear a dramatic story about an "iron lung" being sent at top speed with police escort across the city or to the next town to rescue an infantile paralysis patient, you can take it as an "unsatisfactory solution of an emergency which better should not have arisen," in the words of Dr. James L. Wilson of Detroit.

"Lungs" Not Well Used

Dr. Wilson recently made a survey of the use of "iron lungs" or respirators for the National Foundation for Infantile Paralysis. He found that there are at least 680 of them available in the United States and that between 400 and 500 infantile paralysis patients were treated in them in 1940.

The respirators are not saving as many lives as was originally expected of them and they are not being put to their best use, it is clear from editorial comment in the *Journal of the American Medical Association* and a report by Dr. Wilson appearing in the same issue of the Journal.

Not Always Necessary

Some of these patients should have been put in the respirators much earlier than they were, in order to get the greatest benefit from this aid. Some of them should not have been put in "iron lungs" at all. The "iron lung" or respirator, Dr. Wilson explains, is useful when the patient has trouble breathing because his breathing muscles are paralyzed by the disease. Not all patients with breathing difficulty have paralyzed breathing muscles, however. They have paralysis of that part of the throat called the pharynx, which is between the mouth, nostrils and esophagus or gullet. Their difficulty in breathing is usually due to mucus or phlegm which they cannot swallow and it cannot be helped by the respirator.

Respirators should not be reserved as a last resort in dire emergency, Dr. Wilson points out.

"I believe, though I cannot prove it, that one would probably do more good and save more muscles by using a machine to give rest to several partially paralyzed patients who might well sur-

vive without the benefit of the respirator than to save the life of one terribly paralyzed," he declares.

You can have your child or yourself vaccinated against smallpox, inoculated against diphtheria, whooping cough, lockjaw, typhoid fever and even yellow fever, if you should need to live in yellow fever infested regions. You cannot, unfortunately, provide yourself or your children with the same sort of protection against infantile paralysis. Protective vaccinations have been tried but they not only failed to protect but in some cases, authorities believe, actually caused the disease.

Keep Away From Crowds

About the only thing you can do which might help you to avoid this ailment is to cut down on visiting and attendance at public gatherings and to keep children away from crowds generally if there is an epidemic of infantile paralysis. The disease can be spread not only by sick people but by healthy persons who have recovered from it or perhaps never had it in any recognizable form but are still carrying and discharging the germs. This is what makes it so hard to stop an epidemic. Isolation of all patients is important but does not completely stop the spread.

Recent discoveries show that getting tired out and staying too long in the water when swimming, perhaps because of the chilling as well as the exertion in the last case, may help to bring on an attack. These conditions made monkeys more susceptible to the germ, or virus, of the disease. Many authorities therefore caution parents to be especially careful not to let children get over-tired and to cut down on the amount of swimming they do. Grown-ups should follow the same advice themselves. Infantile paralysis is not limited to children, in spite of its name, and grown-ups anxious to make the most of every minute of a short holiday or vacation are quite likely to get over-tired and to stay too long in the water when they go to the beach or pool.

Remember that even if the disease cannot yet be prevented altogether, its crippling and deforming effects can in large measure be prevented by prompt, adequate treatment.

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The Metropolitan Museum of Art has two *dummy* vases of solid wood painted to resemble real vases of hard stone, which were found in the tomb of an Egyptian priest.

MEDICINE

Army Has Special Course In Tropical Medicine

IN preparation for whatever action the United States may take in the current Latin American and Far Eastern disturbances, the War Department announces that a special course of instruction in tropical diseases has been organized at the Army Medical School, in Washington, D. C.

Doctors taking the course will learn how to fight the cholera and leprosy that are widespread in such countries as China; bejel, a non-venereal form of syphilis occurring among the Arabs of the middle Euphrates Valley; pinta, the spotted sickness of Mexico and other tropical countries; Oroya fever, an infectious disease found in Peru; and "Q" fever, a new disease found first in Australia.

In addition to tropical diseases that are rare and in some cases unknown in the United States, malaria will receive paramount consideration, but no disease is too obscure or too remote to be of great importance to the Army Medical Corps.

Vaccination against yellow fever has already been started among troops serving or likely to serve in regions such as Latin America and Africa where it is prevalent.

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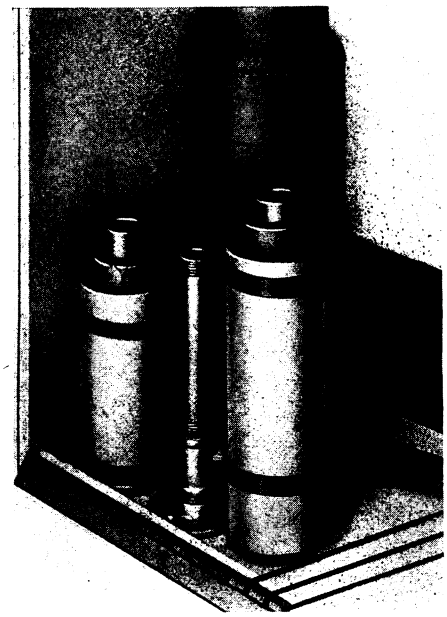

STREAMLINED PIPES

Even air conditioning equipment is given modern artistic lines these days. This is a model cut-away section of Carrier conduit system, showing insulated pipes for hot and cold water and small drain pipe and, in the rear, air supply conduit with front take-off. Air conditioning installations, in both old and new buildings, are simplified with this new system. The conditioned air is distributed with high velocity through conduits about the size of an ordinary steam pipe and a ninth the size of former ducts.

PUBLIC HEALTH

Big Jump in Sleeping Sickness Reported From the Dakotas

A BIG jump in the sleeping sickness (encephalitis) cases in North Dakota has been reported to the U. S. Public Health Service.

The number of people stricken with this disease in the week ending August 9 was 178—more than three times the number of cases reported during the previous week.

In South Dakota, the number has also more than tripled. Cases reported jumped from 19 during the week of August 2 up to 61 for last week.

A slow report by mail brought news to Washington that Texas had 10 cases of sleeping sickness during the week ending August 2. Nothing has yet come in on the following week's toll.

Dr. James P. Leake, who was sent to North Dakota by the Public Health Service to help in battling the disease, reports that circumstantial evidence indicates the outbreak is of the Western equine type, or horse sleeping sickness.

First official word concerning the number of deaths in this outbreak came from Dr. Leake in North Dakota. He reports 41 deaths there out of 285 cases. This is a lower mortality than is usual for this disease.

Infantile paralysis is still on the increase, but, except in the South, the situation is not any more alarming than it has been in recent weeks, reports to the U. S. Public Health Service indicate.

Southern states, which have been having large numbers of cases in previous weeks, are still having them. Alabama, hardest hit by the disease, reports a jump from 49 cases, for the week ending