

ARCHAEOLOGY

Discover Prehistoric Yaws

Syphilis-like disease discovered in bones of teen-age girl found on wartime Tinian beach in Marianas, giving another piece to fit in puzzle of origin of yaws.

► PEOPLE OF the South Pacific had yaws, a syphilis-like disease, long before Columbus discovered America or Magellan sailed around the world.

This discovery, announced by Dr. T. Dale Stewart of the Smithsonian Institution in Washington, fits another piece in the puzzle of the origin of yaws and syphilis that medical men have argued about for many years.

The finding was made in examination of bones obtained by Dr. Alexander Spoehr of the Chicago Natural History Museum on the wartime Blue Beach of Tinian in the Marianas. The bones were those of a 13- or 14-year-old child who died sometime between 700 and 1000 A.D.

Syphilis appeared for the first time in history in the form of a great epidemic that swept over Europe just after Columbus' first voyage to America. Many authorities claimed it must have been brought back from the West Indies by his sailors. But an epidemic of the disease also swept through the Indians of the New World just after Columbus' voyage. So other authorities held that the Spaniards brought syphilis to the New World.

Besides the question of where syphilis started, medical men have argued long and hard about whether yaws and syphilis are the same. Both are present in the West Indies. It is pretty well agreed now that the two are separate diseases, though caused

by spirochete germs that can hardly be told apart and having much the same symptoms.

Whether yaws existed in prehistoric times in America is not known. There is no evidence of its existence at such an early period. This makes discovery of its existence in prehistoric times anywhere of considerable scientific interest.

How yaws got to the South Pacific is not known. First contact of white people with natives of the Marianas was in 1521 when Magellan discovered the islands, and the first white colony was not established there until 1668.

Dr. Stewart feels pretty sure that it was yaws and not syphilis that damaged the bones of the prehistoric child. The reason is that the bones were from a child, and yaws attacks children more often than syphilis does.

The age of the child's bones was determined by the radiocarbon dating method of Dr. W. F. Libby of the University of Chicago, applied to a shell found in the same midden. Archaeologists said the midden seemed to be a one-period site, with everything found in it belonging to the same period.

The finding, Dr. Stewart said, should lead to renewed search for evidence of yaws in prehistoric times in the West Indies and other tropical regions.

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PUBLIC HEALTH

Weight Loss Symptoms

► THE PERSON who has lost weight, tires easily and feels weak may have diabetes or he may have tuberculosis, or he may have both.

Of course, these symptoms can also mean other ailments, and in any case the person who has them should consult a doctor. But if the examination shows he has diabetes, the patient should then be examined to see whether he also has tuberculosis. And patients with tuberculosis should be checked for diabetes.

The reason is that there is more tuberculosis among diabetics than among non-diabetics. A study in Philadelphia showed that among 3,106 known diabetics, the prevalence of tuberculosis was 8.4%, twice that found among 72,000 apparently healthy industrial workers of comparable age, sex and race.

Tuberculosis in the diabetic appears to run a more severe course than in the non-diabetic, and is more likely to be acutely

progressive in type, says Dr. David A. Cooper of Philadelphia, president of the American Trudeau Society which is the medical section of the National Tuberculosis Association.

Dr. Cooper points out that although diabetic control is difficult in the presence of active tuberculosis, the problem is not as great since the advent of newer insulins for diabetes and drugs for tuberculosis treatment.

Once good control of diabetes has been established and maintained, he states that the outlook for the tuberculosis disease does not differ too much from that of the non-diabetic patient.

"In the therapy of diabetic tuberculosis," he states, "nutrition is of paramount importance. No vigorous effort should be made to reduce the overweight diabetic who has tuberculosis until the tuberculosis is definitely inactive. A diet of 2,500 to 3,000 calories is advisable with a minimum of 100

grams of protein a day. On general principle, supplementary vitamins are advisable.

"The advent of insulin enables the diabetic to eat an adequate diet, which is essential for all tuberculosis patients. Collapse or surgical therapy and chemotherapy may be used as successfully in the diabetic as in the non-diabetic, and perhaps should be resorted to more promptly."

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DENTISTRY

Tooth Grinding Chips And Loosens Teeth

► DO NOT grind your teeth, warns Dr. Arthur F. Schopper, Kansas City, Mo., dentist.

Unchecked, the tooth-grinding habit causes teeth to chip and loosen and makes for considerable erosion and sensitiveness of the gums, he declares in a report in the *Journal of the American Dental Association*.

Most people grind their teeth while sleeping. In severe cases the habit can be corrected by a retaining appliance designed to keep the dental arch in place after correction of tooth irregularities. Persons who cannot bring their upper and lower front teeth together cannot use the appliance, but they can use bite blocks between the upper and lower rear teeth to prevent grinding at night.

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BIOPHYSICS

Body Reacts to Remove Inhaled Radioactive Dust

► STUDIES WITH rabbits at the University of California's Atomic Energy Project at Los Angeles indicate that inhalation of insoluble radioactive dust may not be as serious as previously thought because of "built in" safety factors inside the body.

Research by Dr. George V. Taplin has shown that certain mechanisms in the respiratory tract remove insoluble foreign particles in a few days.

These mechanisms in rabbits include secretions from respiratory membranes, small hair-like projections and certain scavenger cells. Similar mechanisms in man would perhaps react the same way, he thinks.

Further investigation revealed that simultaneous whole-body radiation increased the efficiency of these mechanisms. A temporary depression of scavenger cell activity occurred. Later on, however, they became overactive.

"This depression of scavenger cell activity may be a cause of many illnesses and deaths resulting from radiation injury," said Dr. Taplin. It enables bacteria in the body, normally held in check, to invade the blood stream.

"This suggests that use of drugs stimulating scavenger cell activity together with certain antibiotics might reduce the number of radiation deaths considerably."

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