

MEDICINE—DENTISTRY

Vitamin C Is Suggested As Treatment For Pyorrhea

Link Between Gum Disease and Scurvy Revealed When Symptoms Are Found Correlated With Blood Content

A LINK between pyorrhea and scurvy has been forged at the laboratories of the Harvard Dental School. Drs. Paul Boyle and David Weisberger have under way research which indicates that a lack of vitamin C in the diet may be the cause of—or at least a contributing factor to—pyorrhea just as this vitamin C has long been known to cause scurvy.

While the findings are yet incomplete they indicate, say the scientists, that as far as the general practitioner is concerned vitamin C treatment for pyorrhea "can be adopted with safety and it probably should be adopted as a routine measure in addition to, but not in place of, other recognized forms of therapy."

The Harvard dentists have been working with both animals and humans in their studies. Guinea pigs were fed diets varying in their vitamin C content and later checked to see the degree of pyorrhea which they developed. X-ray and microscopic examinations of these animals showed all the characteristics of true pyorrhea in reproducible form.

Forty-eight human patients were studied in the dental school where their degree of pyorrhea symptoms were compared with the content of vitamin C in their blood. Twenty-three patients with a low vitamin C blood content had marked evidences of the disease. Ten patients with a reduced vitamin C blood content showed the gum disease but to a lesser extent than the first group. Among fifteen patients with normal vitamin C blood content only one case had the disease.

Not Conclusive

These human findings, it is emphasized, are not conclusive but they do offer a most consistently positive finding in cases of the advanced disease, Dr. Weisberger indicated.

To the layman and the average dental practitioner the research has three significant points: (1) The new test of vitamin C in the blood as employed is not practical for a dental office and will probably largely be confined to hospi-

tals. (2) The suggested use of vitamin C is a relatively safe procedure, for most experts agree the body can handle an overdose easily. This is not true with vitamin D. (3) The improvement in the mouth tissues around the teeth, which occurs when vitamin C is administered, indicates the practical value of the treatment.

Vitamin C, found naturally in limes and lemons principally, is also available in tablet form as ascorbic acid or cevitamic acid. To maintain the normal amount of vitamin C in the blood a daily intake of 50 milligrams is sufficient. The suggested dose for treating pyorrhea is a gram in five or six days, or about 150 to 200 milligrams daily.

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ETHNOLOGY

Chinese Civilization Is Not So Ancient As Once Thought

SOME people have claimed that the famed and ancient civilization of China grew and flourished in the isolation that occidental travelers knew when they first went there in comparatively recent times. Others hold that China's civilization and its arts were lifted "ready made" from the Near East civilization of Babylonia and Egypt.

Neither theory has any basis of fact, declared Carl Whiting Bishop of the Freer Gallery of Art, Washington, D. C., in an address before the University of Michigan Institute of Far Eastern Studies.

New knowledge of the last few years is upsetting some long favored conceptions of China and its cultural rise. For one thing Chinese civilization is not one of the oldest in the world, as popularly supposed.

What China truly can claim, said Mr. Bishop, is a longer continuous history than most nations have, which helps lend an air of antiquity really unpossessed.



LARGEST CHROME-ALUM CRYSTAL?

This huge chrome-alum crystal, 18 inches high and weighing 50 pounds was "grown" from a perfect microscopically-selected "seed" during the past three and one-half years by Stanley A. Phillips, of the University of Illinois, who holds another chrome-alum crystal only six weeks old.

Actually Babylonia and Egypt were flourishing thousands of years before China. But China has changed so slowly that it has retained, almost into present times, some characteristics which have disappeared from other nations long ago. This, again, lends an air of antiquity to probing modern men.

The early origins of China's civilization, said Mr. Bishop, appear to have arisen in the basin of the great Yellow River, making it another one of the well-known "river-valley civilizations" like those along the Nile, the Indus and Euphrates.

When Babylonia and Egypt had advanced well on the way to organized civilization the Chinese dwelt in a state of barbarism only a little more advanced than those of the American Indians on the Atlantic seaboard at the time of the landing of Columbus, declared Mr. Bishop.

One fact indicating that Chinese civilization was probably not of independent, isolated origin is that few, if any, of the

domestic animals or food plants of either the modern or ancient Chinese were of native origin. Not only did these forms appear in the Near East long before they appeared in China but also there appear to be no wild forms native in China from which they could have come. However, the migration of these foods and plants was accomplished before the beginning of China's historical period.

At the earliest known historical time in China—about the middle of the second millennium B. C.—society was divided there into two great classes; landholding feudal lords and a great mass of serf population. The former class can be said to have been in the Bronze Age of civilization, while the latter were still, in effect, in the New Stone Age.

Then, about the 11th century B. C. came the invasion of China by the peoples of unknown but probably related origin, the Chou. With this invasion came significant changes that occurred slowly but surely. By 200 B. C., China was finally coming into her Iron Age, said Mr. Bishop.

Autocratic government in China, centered in a single emperor, did not arrive until the third century B. C., Mr. Bishop added. With this important change Chinese civilization took on those characteristics that marked it for the next two thousand years; or until the impact of sea trade routes led to its collapse.

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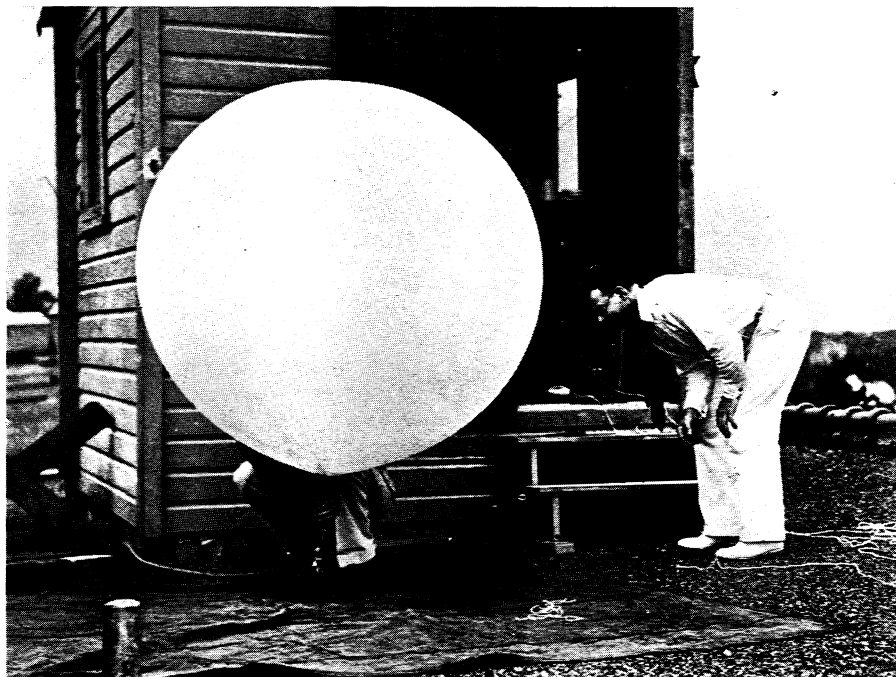
ANTHROPOLOGY

Oldest Man Once Lived Where Fighting Now Rages

WHERE modern man's most ancient ancestors known to science lived, loved, worked and fought, Japanese and Chinese soldiers are now using the most modern methods of killing each other. Reports from the Peiping area indicate that the famous archaeological sites near Chou-kou-tien are well within the battle zone. Here have been unearthed from caves the bones of *Sinanthropus*, the Peking Man, who lived perhaps half a million years ago and who is considered to be perhaps the most ancient ancestor of modern man.

Chou-kou-tein is only 45 miles from Peiping on a branch of the Peiping-Hankow Railway. Scientists here are concerned that the present fighting will endanger the collections and studies of the geologists and anthropologists engaged in studying Peking Man, as well as other scientific work in the Peiping area.

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BALLOON

Dr. L. F. Curtiss, National Bureau of Standards scientist, oversees the inflation of one of the small robot balloons which bear aloft radio transmitting equipment that helps science probe the upper air secrets of weather and cosmic rays. Recently Dr. Curtiss sent up a balloon which reached an altitude of 17 miles and then fell at a speed of 150 miles an hour. At 8,000 altitude it was seen by . . . (See next page)

PHYSICS—AERONAUTICS

Cosmic Ray Radio Balloon Followed by Plane to Ground

A STAR fell on tobacco row at a farm near the little town of Aquasco, Md., some 30 miles from Washington. Moreover an airplane chased the star to earth. Or at least that is what Franklyn Irvin Gibbons thought as he stopped hoeing his tobacco recently and watched a plane following a shining object coming down from the sky into his nearby cornfield.

The "star" was a radio balloon sent aloft by Dr. L. F. Curtiss of the National Bureau of Standards, which ascended some 17 miles and transmitted, back to earth, cosmic ray data. The zooming airplane was from the U. S. Naval Air Station, flown by W. B. Fuller, radioman first class, and O. T. Cooper, chief radioman. They noted the shining bag of the radio balloon falling at the rate of about 150 miles an hour at an altitude of 8,000 feet and dove to follow it to its landing. The coincidence is the

first ever known to occur in the new field of radio meteorography by which scientists are now probing the upper air to learn its weather and cosmic ray secrets.

Tiny radio transmitting sets carried aloft in small, unmanned balloons are reaching far beyond the limits of human flight in either airplanes or balloons. The particular "star" which farmer Gibbons recovered had gone up nearly 90,000 feet. Other and similar instruments sent up by Dr. Curtiss have reached altitudes of 25 miles or about 132,000 feet.

Tobacco-hoeing Mr. Gibbons thus described the landing for Science Service:

"It sure fell fast and I ran down the valley and around the woods after it. That airplane was so close that it scared the children. It carried two men; I could see them, it was so close. The balloon stopped in the cornfield just two corn