

Did the Influenza Plague Really Come from China?

How Science Has Found a Startling Likeness Between the Germs of the Appalling Disease as It Appears in European and American Cities, and As It Has Thrived in Mongolian Slums



The Tarbagan, or Marmot, of the Squirrel Family, Used as Food in China, and Regarded as Responsible for Many Cases of Plague.

Vaccine for the Plague

By Dr. Leonard Keene Hirschberg

The successful work of American physicians in applying preventive measures against the plague gives great interest to the following statement by Dr. Leonard Keene Hirschberg:

Once the germ was brought to light, isolated and cultivated by itself, the doctors in several American army camps at once set to work to boil and bottle the dead microbes as a vaccine.

The new vaccine—sometimes absurdly called a serum—has been found to be nearly a complete and positive preventive of Spanish influenza and its complications.

So successful has its use as a preventive in oculation been proved that since the first day it was introduced on a large scale Sept. 28, 1918, when 31,117 new victims were reported, there has been a steady decline in the number of soldiers and civilians affected.

Use of the vaccine will be widely extended since Congress appropriated \$1,000,000 to be used by the public health service in fighting this communicable disease.

The public health service, aided by the medical forces of the army and navy, took steps to render effective aid to all districts in which influenza made its appearance.

The vaccine has been used in several camps but to announcement had been made of its discovery pending the result of widespread tests.

Physicians developed the vaccine which was manufactured in quantities sufficient to provide for the treatment of 50,000 persons daily. The vaccine is designed primarily for pneumonia, which often follows attacks of influenza and which is the cause of practically all the deaths attributed to influenza.

One treatment with the vaccine only is needed, although in the early stages of its development three vaccinations were found necessary.

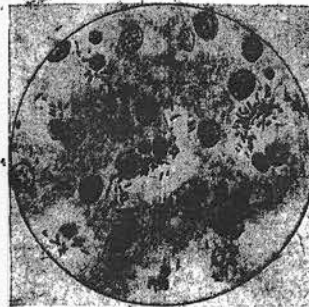
There are a number of vaccines now employed successfully in army and navy cantonments. It is a pathetic reflection upon so-called "human intelligence" that it is necessary to have military discipline to prevent people getting typhoid, dysentery, meningitis, influenza and pneumonia.



Section of Lung Showing Plague Bacilli.



The Tarbagan Fish, Greatly Magnified. This Creature Is Credited with Carrying the Germs of Chinese Influenza.



Section of Kidney Showing Presence of Large Number of Bacilli.

The bacillus pestis was almost constantly found associated with the pneumococcus and the streptococcus. These organisms were found in different localities where the plague was prevalent. The virulence of the disease likewise varied. For instance, Dr. Shibayama made a report on eight different strains of pneumonic plague organisms



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By James Joseph King, A. B., M. D.

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A COMPARISON of the epidemic of the disease known as "Spanish influenza," with the epidemic of pneumonic plague that broke out in Harbin, China, in October, 1910, and spread continuously throughout northern China at the time, reveals on many points of similarity as strongly to suggest that the disease which became epidemic this fall may be the same malady, but modified by racial and topographical differences, that ravaged northern China eight years ago. The origin of the influenza plague was ascribed to the winter soon after its outbreak in our camps, by Mr. Guy M. Walker, an eminent American authority on Chinese affairs. This suggestion led to an investigation of the reports of the pneumonic plague in China and there is sufficient likeness of that disease to the so-called Spanish influenza as to warrant a consideration of it.

Pneumonia in Harbin

The pneumonic plague first appeared in Harbin, a town in Manchuria under Chinese control. Harbin is on the Trans-Siberian Railroad and was the original hotbed of the disease. The plague had prevailed in Russia previous to November, 1910, but the Russians, alert to its danger, took immediate action and stamped it out. It was believed that the plague was carried into Harbin by the fur dealers, the furs themselves, and by Chinese laborers returning to their homes to celebrate New Year's Day, a custom universally observed in China. From Harbin the plague radiated in all directions usually following the lines of traffic along the railroads.

It spread as far south as Chifu, a seaport town, probably having been carried there by Chinese coolies returning from the north.

By Jan. 24, 1911, 1200 Chinese and 27 Europeans, two of whom were physicians, and an assistant had died of it; in fact, nearly all who had the disease perished of it.

The Spread in China

The plague had been very serious, the mortality being fearfully high. This malady has spread throughout China. Wherever Chinese coolies from the north have travelled they have carried this disease. From 1910 up to 1917 China has not been free from it. The writer has heard of several cases being present in Peking last year.

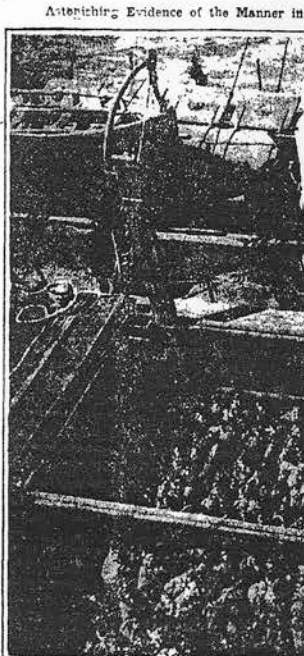
In the early part of 1917 about 200,000 Chinese coolies collected from the northern part of China where the pneumonic plague has raged at intervals since 1910, were sent to France as laborers. Part of them were sent around through the Mediterranean; some, and perhaps the majority, were sent across the Pacific and then through Canada and America to be transported across the Atlantic to France. Entire trainloads of these coolies were carried across the United States to the port of New York and thence to France.

The photograph showing the loadings of the coolies at Welhaven ready for embarkation in France via Pacific, Canada, America and Atlantic, were taken by Mr. L. P. Frieder.

Coolies Carrying the Plague

The coolies made splendid laborers in France and were in back of the lines during the German drive of March, 1918. No doubt many of them were captured by the Germans at that time. Hence the outbreak of the disease in the German army and its rapid spread in Spain.

So far as medical science knows today this disease first broke out last spring in the German army where it was said to have been very serious. Next it was heard of in Spain, hence the name



Astounding Evidence of the Manner in Which Chinese Coolies, Often Infected by Disease, Are Shipped from Chinese Ports.

before the International Plague conference held in Mukden in April, 1911.

The bacteria found in patients in the influenza epidemic have been the influenza bacillus associated with the four groups of pneumococci, the streptococcus hemolyticus and the micrococcus catarrhalis. For instance, in one camp the organisms found were the influenza bacillus associated with group 1 pneumococcus; in another it was the influenza bacillus associated with group 2 pneumococcus; in another influenza and streptococcus hemolyticus, etc.

We see, therefore, how different strains of the pneumococcus and streptococcus associated with a bacillus were the exciting causes of the epidemic in different localities. Likewise, the mortality and virulence of the disease has varied in different localities.

Similarity in the Two Plagues

Thus we have shown a striking similarity between the pneumonic plague of north China and the so-called Spanish influenza epidemic. It is not unreasonable to believe that the two diseases may be the same. The influenza bacillus and the bacillus pestis in atypical forms may simulate each other. We know that organisms may assume different forms and have different cultural characteristics under different conditions.

The ordinary influenza bacillus is a short slender bacillus. The bacillus pestis is about the same