Annotated Bibliography

        Typhoid Fever, a bacterial disease transmitted through a fecal-oral pathway, caused swaths of destruction wherever it sprang up. It spreads through the body, raising the victim’s temperature up to around 103-104 degrees Fahrenheit, debilitating them from that activities of life. The method of transmission, coupled with pre-modern sewage management techniques, exacerbated the spread of the infection in the times before the identification of bacteria in the 1870’s, and subsequent discoveries of antibiotics in the mid 1900’s. Before industrialization, Typhoid Fever was found worldwide wherever humans with animals such as cattle or chickens were found, due to the bacteria finding homes in these animals before passing to humans through consumption, and leaving destruction

        One such moment in history where a plague caused possibly by Typhoid Fever occurred in Athens in 460-426 BC. The cause of this plague, up until 2005, was under debate due to the lack of direct DNA evidence pointing to Typhoid. Throughout the years, possible causes included bubonic plague, typhus, smallpox, measles, and toxic shock syndrome. All of these were deduced from the writings of the plague survivor Thucydides. In this paper I hope to learn more about this plague and the debates about its cause, and how direct DNA material helps identify historical plagues and their causes.

Additionally, I plan to take my findings on the Plague of Athens and compare the impact it had at the time it occurred to modern day occurrences of Typhoid, mainly by looking at the global burden of the disease today and how it impacts various parts of modern day society.

Works Cited

Papagrigorakis, Manolis J. "DNA Examination of Ancient Dental Pulp Incriminates Typhoid Fever as a Probable Cause of the Plague of Athens." *International Journal of Infectious Diseases* 10.3 (2006): 206-14. *Science Direct*. Elsevier Ltd., 18 Jan. 2006. Web. 26 Apr. 2016

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        This journal article describes the reasoning and method used to determine “definitively” the cause of the Plague of Athens. The method, which involved examining the teeth of plague victims found in a mass grave which dated back to around 430 BC, the period of the plague. It is explained that dental examination is better than other organic material examination due to the fact that dental pulp (the center of the teeth) has very good vascularization, is extremely durable, and is relatively sterile, even after very long periods of time.

Longrigg, James. "The Great Plague of Athens." *History of Science* 18 (n.d.): 209-25. *Adsabs.harvard.edu*. SAGE Publications. Web. 26 Apr. 2016.

        This journal article describes in detail the history of the Plague of Athens, the writings of Thucydides, and possible theories for the causation of the disease at the time of publication (1980). It provides great interpretations of Thucydides’ writings of his experience, both personal and observational, of the plague, and provides examples of various false theories previously believed to be the cause of the plague.

CDC. "Typhoid Fever." Centers for Disease Control and Prevention. Centers for Disease Control and Prevention, 14 May 2013. Web. 27 Apr. 2016.

This is the Center for Disease Control’s general info article on Typhoid Fever, providing information on etiology, transmission, symptoms, treatment, and prevention techniques. It also provides links to other CDC diseases that are related to Typhoid, which could prove useful when explaining the reason why so many scholars and historians were misled by Thucydides’ writings by wrongly diagnosing the cause of the Plague of Athens.

Neil, Karen P. "A Large Outbreak of Typhoid Fever Associated with a High Rate of Intestinal Perforation in Kasese District, Uganda, 2008–2009."Clinical Infectious Diseases 54.8 (2012): 1091-099. Oxford Journals. Oxford University Press, 22 Feb. 2012. Web. 27 Apr. 2016.

This article recounts a large outbreak of Typhoid Fever in Uganda in the late 2000’s. Using this, I hope to make some connections between the ancient Plague of Athens and modern day epidemics of the disease. By doing this, I hope to determine the difference in how we as a society react to the disease.

Watson, Conall. "A Review of Typhoid Fever Transmission Dynamic Models and Economic Evaluations of Vaccination." Vaccine 33.3 (2015): C42-54. ScienceDirect. Elsevier B.V. Web. 27 Apr. 2016

This article provides a detailed analysis of the economic effects of Typhoid Fever and its subsequent vaccines related to it. I hope to use this to analyze how we are dealing with the disease today from an economic standpoint.