

REVIEW ARTICLE

OPEN ACCESS

Received: 07.09.2022

Accepted: 30.09.2022

Published: 22.12.2022

Citation: Rajashekar TS, Suresh KK, Harish PR, Madhu KC, Hanumanthayya K. Mystery of Origin of Syphilis. J Clin Biomed Sci 2022; 12(4): 125-127. <https://doi.org/10.58739/jcbs/v12i4.116>

* Corresponding author.

kelojihan123@gmail.com

Funding: None

Competing Interests: None

Copyright: This is an open access article distributed under the terms of the [Creative Commons Attribution License](#), which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Published By Sri Devaraj Urs Academy of Higher Education, Kolar, Karnataka

ISSN

Print: 2231-4180

Electronic: 2319-2453



Mystery of Origin of Syphilis

Rajashekar T S¹, Suresh Kumar K², Harish Prasanna R³, Madhu Kiran C³, Hanumanthayya K^{4*}

1 Professor & HOD, Department of Dermatology, Sri Devaraj Urs Medical College, Sri Devaraj Urs Academy of Higher Education and Research, Tamaka, Kolar, Karnataka, India

2 Assistant Professor, Department of Dermatology, Sri Devaraj Urs Medical College, Sri Devaraj Urs Academy of Higher Education and Research, Tamaka, Kolar, Karnataka, India

3 Post Graduate, Department of Dermatology, Sri Devaraj Urs Medical College, Sri Devaraj Urs Academy of Higher Education and Research, Tamaka, Kolar, Karnataka, India

4 Professor, Department of Dermatology, Sri Devaraj Urs Medical College, Sri Devaraj Urs Academy of Higher Education and Research, Tamaka, Kolar, Karnataka, India

Abstract

Syphilis is one of the oldest disease known to humans. Its history is as old as history of humans. Syphilis affects sexually active people, who are in productive age (15 – 65 years). The norm across all societies in the world is to get married after attaining sexual maturity for obtaining sexual satisfaction and procreation. Further, “Monogamy and Monoandry” is the recommended and widespread practice in the present world. If humans ignore the golden rule of monogamy and monoandry and indulge in indiscriminate and unprotected sex, they will suffer from sexually transmitted diseases (STDs). Syphilis is the commonest STD, has troubled humans since ages. The history of syphilis is mysterious, if we search the literature regarding the origin of syphilis, three important theories are mentioned. They are 1) Columbus theory, 2) Hudson theory, and 3) European universal theory.

Keywords: Syphilis; STDs; Columbus theory; Hudson theory; European universal theory

Introduction

Syphilis is one of the commonest STD affecting humans in their sexually active age from 15 to 65 years. Syphilis often gets transmitted during the act of sex, congenital syphilis and syphilis without sexual transmission have also been described. Syphilis is caused by a spirochete called *Treponema pallidum* (TP).

TP is a fine, motile, spiral organism, measuring 6-20 μm in length and 0.1 to 0.18 μm in thickness with characteristic motility. It has regular spirals which help in differentiating from other

non-pathogenic *Treponema*. The median infective dose necessary to produce successful infection is determined to be 57 organisms. The generation time of TP is 30 hours. The concentration of treponema generally reaches 107/gm of tissue before clinical lesions appear. The median incubation period in humans is 21 days (9-90 days). An average inoculum of 500-1000 infectious organisms are deposited at the time of sexual intercourse. During 15th and 16th century, syphilis was more virulent and the mortality rate was very high.

Hence, the disease was called Great pox (To compare the deaths caused by smallpox), during the same time. The virulence of the organism has reduced over time, but infectivity is still high, and the disease is very much prevalent all over the world.

Columbus theory

This popular theory states that, Columbus and his crew, might have brought syphilis on their return from the New World (Haiti) in 1493, and aiding the spread of disease in Europe.¹ The king and queen of Spain (Ferdinand and Isabella) had ordered Columbus to discover a naval route to South India for trading spices in September 1493. The king had sponsored 3 ships and 66 crew members. The ships sailed towards east and for the first 3 days, the voyage was pleasant and on the 4th day the ships were caught in a hurricane and lost the course, travelling towards west instead of east. After a long voyage of 1 month the ships anchored on the shores of an island, presently Haiti in the Atlantic ocean. Columbus thought he had finally discovered India. The king of Spain had described Indians as short, wheatish, humble, very hospitable towards visitors, and friendly. On the contrary, Columbus found tall, red, rough, quarrelsome people and he called them Red Indians. The crew started to explore the island in search of spices and condiments and while searching, they observed red Indians having sex with small camels called Llama. The crew also indulged in sex with these animals, and brought these animals back to Spain and gifted llama to members of the royal family. The practice of gifting llamas to royalty of neighbouring countries was continued by the Spanish nobility and the practice of indulging in sex with the llamas became more rampant. It was observed in many members of the royalty who had indulged in sex with llamas developed genital ulcers. The genital ulcers were accompanied with symptoms of syphilis. Subsequently, within a couple of months many individuals succumbed to this new disease. The disease was looked down as a stigma and the people of Europe started blaming other countries for starting the epidemic. Syphilis was given many names during this period, to name a few popular names such as "Spanish disease, French disease, Italian disease, the German disease, the Neapolitan disease, the Christian disease, the Polish disease, Venus disease, Lues Venera, Social disease, and Great Pox". These names supposedly indicated the country of origin or the class of people from where syphilis started. In 1521, Girolamo Fracastoro (Latin: Heironymus fracastorius) an Italian physician and poet, wrote a poem in Sunday newspaper with the title "Syphilis Sive Morbus Gallicus". The poem tells of Syphilus, a mythical shepherd who insulted the sun god of Haiti. In retaliation, the god sends a plague to Haiti and Syphilus became the first victim. The poem described about the suffering, progression of the disease and death of Syphilus. Girolamo also described in detail, how this disease was brought by Columbus' sailors

from the New World, and helped its spread in Europe. All the leaders and doctors read the poem, and realized that, this poem explained the natural course of the new disease, syphilis. This Columbus' theory of origin of syphilis is well supported by the papers published by two physicians 1) Fernandez de Oviedo and 2) Ruy Diaz de Isla, who were instructed by the King Ferdinand of Spain to go to the New World to find out the details about the new disease. Both the physicians found that, this new disease was well known in New World, and the local people were treating syphilis with extract of Guaiacum tree. Both physicians also recorded that, this new disease was not known in Europe, till Columbus returned from New World in 1493 to Spain (Europe).^{2,3}

A travel magazine written in October 1961, number 49, describes that, Columbus gave Gonorrhea and alcohol to Haitians and brought Syphilis and Tobacco from Haitians and spread it in Spain (Europe).

Pusey WA published an article in the Journal of American Medical Association mentioning that, the exact date of the history of Syphilis began, with the discovery of New World America. Columbus and his sailors returned from Haiti in 1493, and brought this disease to Europe and subsequently Europeans spread this disease to the entire world in a few years.⁴

Hudson theory

Hudson wrote scholarly articles in 1958, 1963, and 1965 regarding the origin of Syphilis. He identified 4 subtypes of *Treponema*, 1) *Treponema pallidum* causing venereal syphilis. 2) *Treponema pallidum* pertenue causing yaws. 3) *Treponema pallidum* endemicum causing endemic syphilis (bejel). 4) *Treponema pallidum* carateumpinta. Hudson believed that syphilis, yaws, bejel and pinta are just different epidemiological patterns of the same disease, have similar clinical features, same laboratory findings, and all of them are cured with same medicines. He observed that all four of these infections were common and endemic in Central African black population. He proposed that these people started migrating from humid Central Africa to drier regions. Meanwhile, the explorers from Europe gradually introduced their practices, civilization, urbanization and education to these naïve population. The modernization made people of Africa who were once naked or scantily clad to wear clothes covering most of their bodies and they probably undressed fully only during the sexual act. Hudson proposed that endemic treponematoses which were once transmitted by vectors and by close contact with the skin evolved to become venereal to continue the chain of transmission. Syphilis spread from Africa to European and Asian continents with the migration of masses, slave trade and wars. Hudson concluded that syphilis evolved from non-venereal treponematoses in Africa before spreading to other continents.⁵⁻⁷

European universal theory

Castiglione, the medical historian, hypothesized that, syphilis was already present in Europe, before the arrival of Columbus but, most of it's were mistaken for leprosy.¹ He also proposed Columbus and his crew might have brought more virulent form of *Treponema* from New World to Europe; hence the disease spread quickly all over the world with increased fatality. Syphilis was known in India, the first references to this disease and treatment is found in Ayurvedic book called Bhavaprakasa, written by Bhavamisra.⁸ Similarly, Syphilis is also described in many other countries.

Conclusion

Many theories have been proposed to explain the origin of syphilis, of which the previously mentioned theories are well accepted. All the three theories explain the origin of the syphilis in different context.

Columbus' theory highlights the public health problem created by syphilis d in the 16th century. Hudson theory explains the role of civilization, urbanization, and education in changing the behavior of the people. It explains how the endemic disease transformed to a venereal disease with initiation of hygienic practices.

European theory explains that, sex is universal and a basic instinct of all the living creatures and consequently sexually

transmitted diseases are also common to all living creatures. Hence syphilis became prevalent all over the world.

References

- 1) De Melo FL, De Mello JCM, Fraga AM, Nunes KM, Eggers S. Syphilis at the Crossroad of Phylogenetics and Paleopathology. *PLoS Negl Trop Dis* . 2010;4(1):e575. Available from: <https://doi.org/10.1371/journal.pntd.0000575>.
- 2) Morton RS. Another look at the Morbus Gallicus. Postscript to the meeting of the Medical Society for the Study of Venereal Diseases, Geneva, May 26-28, 1967. *Br J Vener Dis* . 1968;44(2):174-177. Available from: <https://doi.org/10.1136/sti.44.2.174>.
- 3) Baker BJ, Armelagos GJ. The Origin and Antiquity of Syphilis: Paleopathological Diagnosis and Interpretation. *Curr Anthropol* . 1988;29(5):703-738. Available from: <https://doi.org/10.1086/203691>.
- 4) Pusey WA. The Beginning of Syphilis. *J Amer Med Ass*. 1915;64(24):1961-1964.
- 5) Hudson EH. Treponematoses and African Slavery. *Br J Vener Dis* . 1964;40(1):43-52. Available from: <http://dx.doi.org/10.1136/sti.40.1.43>.
- 6) Hackett CJ. On the origin of the human trepo- nematoses (pinta, yaws, endemic syphilis and venereal syphilis). *Bull World Health Organ*. 1963;29(1):7-41. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2554777/>.
- 7) Willcox RR, Guthe T, Treponema. A bib- liographical review of the morphology, culture and survival of *T. pallidum* and associated organisms. *Bull World Health Organ*. 1966;35(1):5-9. Available from: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2476063/>.
- 8) Thappa DM, Singh N, Kaimal S. Prostitution in India and its role in the spread of HIV infection. *Indian J Sex Transm Dis*. 2007;28(2):69-75. Available from: <https://doi.org/10.4103/0253-7184.39007>.