

## HEREDITARY SYPHILIS IN THE WRITTEN SOURCES OF THE 15<sup>TH</sup> AND 16<sup>TH</sup> CENTURY

*“In recent times I have seen scourges, horrible sicknesses and many infirmities afflict mankind from all corners of earth. Amongst them has crept in, from the western shores of Gaul, a disease which is so cruel, so distressing, so appalling that until now nothing so horrifying, nothing more terrible disgusting, has ever been known on this earth. (Libellus Josephi Grunpeckii, De Mentalagra, alias Morbo Gallico, 1503).”*<sup>1</sup>

In the 15–16th century medical science had to face a disease which was not defined and had an unknown origin. The new disease, which had numerous names all over Europe but is mainly referred to as “*Morbus Gallicus*” in contemporary medical literature, was first mentioned in written sources in the late 1490s. Its clinical features and the fact, that it was estimated to be inherited, was an absolutely new challenge at that time.

### Questionable origin

There are still debates concerning the origin of the disease. The problem itself is very complicated and complex as the concepts are based on the study of numerous source collections. For researchers of syphilis the main question is whether the expansion of the ailment happened after the discovery of the New World, or if there is a possibility, that it had been present in Europe before.<sup>2</sup>

This controversy is centuries old, but we can declare that the researchers have a unified state about the outbreak and the spread of the epidemic in Europe. This historical moment was King Charles VIII’s Italian campaign in 1494–1495.<sup>3</sup> The first description of the disease in written sources can be dated with the 5<sup>th</sup> of July in 1495 when the mercenary troops of King Charles VIII, responsible for the dispersion of

1 Claude QUÉTEL, *History of Syphilis* (Polity Press 1990) 17.

2 A. M. SEFTON, *The Great Pox that was ... syphilis*. In: *Journal of Applied Microbiology* 91 (2001) 592–596; QUÉTEL, *History of Syphilis* 33–49; Charlotte ROBERTS, Keith MANCHESTER, *The Archeology of Disease* (Cornell University Press Ithaca, New York 1995) 151–159; Sheldon WATTS, *Epidemics and History. Disease, Power and Imperialism* (Yale University Press – New Haven London, 1997) 126–127; Jon ARRIZABALAGA, John HENDERSON, Roger FRENCH, *The Great Pox. The French Disease in Renaissance Europe* (New Haven and London 1997) 16.

3 Known as first Italian War (1494–1495), a dynastic conflict over the throne of Naples.

the disease on a large scale, confronted the Italian forces at Fornovo.<sup>4</sup> There are numerous written sources from the 1500's that unequivocally confirm that Columbus's sailors and the native Americans who were brought back with them introduced the disease and that it was spread by the Spanish mercenary forces joining the French army.<sup>5</sup> We also know some contemporary commemorations, saying that syphilis had reared its head in French or Spanish territories and would not correlate with the discovery of America.<sup>6</sup>

### Difficulties

*"[...] Dupliciter hic possumus respondere, iuxta duplicem historiam de eius origine. Sunt enim qui dicant novum non simpliciter esse, sed ex insula quadam antiquis incognita, ubi frequentissimus est, in hanc quam nos incolimus habitabilis terrae portionem, per Hispanos qui illuc navigarunt importatum, principio apparuisse. Alii sunt, et haec est antiquior sententia, et maioribus testimoniis, qui copisse hunc morbum per id tempus dicunt, quo Carolus Francorum rex expeditionem Italicam parabat [...]"*<sup>7</sup>

When examining contemporary written sources we can ascertain one thing: Even the first documentations, regarding the outbreak of the disease, contain contradictory information about its origin. But what is even more interesting is the fact, that there was no certainty about the question, if syphilis was a totally new disease or had already existed before.

There are countless factors that make the clarification of the disease's origin difficult on the basis of written sources. One main factor is that it is really hard to distinguish the symptoms of syphilis from other sicknesses in sources that were written with dissimilar intentions and grounds. The lack of a unified name for the disease worsened the situ-

4 "[...] several men-at-arms or footsoldiers who, owing to the ferment of the humours, had 'pustules' on their face and all over their bodies. These looked rather like grains of millet and appeared on the outer surface of the foreskin or on the glans [...]" "[...] Through sexual contact, an ailment which is new, or at least unknown to previous doctors, the French sickness, has worked its way in from the West [...]" *The entire body is so repulsive to look at and the suffering is so great, especially at night [...]"* QUÉTEL, *History of Syphilis* 10.

5 "[...] this malady (the bubas) comes from the Indes [...] the first time this sickness was seen in Spain was after Admiral Christopher Columbus had discovered the Indes and returned from those lands [...]" QUÉTEL, *History of Syphilis* 35.

6 "The purulent pustules spread in circle [...] the disease infects neighbouring regions largely by means of contact between men and women [...] they maintain this new epidemic has come from mighty France." "[disease] began to appear two years before the arrival of Charles in Italy. It had overrun two kingdoms of Spain [...] before reaching us." QUÉTEL, *History of Syphilis* 42–43.

7 Johannes MANARDUS, *Epistolarum medicinalium Lib. XX* (Venetiis 1542). Epist. II. Ad Michaellem Sanctannam Chirurghum, de nominibus morborum in exterioribus corporis partibus evenientium 106.

ation as well as the inability to clearly identify and classify it in the system of already known illnesses at that time.<sup>8</sup>

Today it is known that syphilis is a sexually transmitted disease (STD). Since syphilis is a long lasting, chronic infection with longer symptomatic and asymptomatic periods, its symptoms are various and can involve the whole body. For example in the case of the pathological changes of the skin it can hardly be distinguished from other diseases which produce the same poxes and rashes. After it has spread from the body surface to the bones and internal organs, it causes completely different – nervous as well as other – symptoms. The aim of the pathogen is to find an optimal environment for its own survival and reproduction. The bacterium is transmitted through sexual intercourse and is able to survive in the host for years. Therefore the infected person can transmit it through another sexual contact.<sup>9</sup> The chronic course of the disease also makes it hard to identify it in written sources.

We also have to take into account, that the bacterium itself might have undergone mutations over the centuries, which changed its procession, symptoms, and duration.<sup>10</sup> At the end of the 15th century and the beginning of the 16th century the disease is described as most destructive scourge people have ever seen, but later the sources report its “taming”.

### The aim of the essay

The aim of this essay is to propose viewpoints to the investigations of the written sources, which would facilitate the recognition of symptoms and thereby the description of individual case histories which could help the investigation of the disease’s origin, changes and effects on history itself.

### Clinical features

*“Gallicus morbus est soluta continuitas, ab exustis humoribus per contagium fere in concubitu genita, a malignis quibusdam pustulis incipiens, pudenda plerunque, deinde reliquas corporis exteriores partes, caput praecipue inficiens: dehinc intimas parte ingressa, dolores circa articulos et ossa noctu praecipue facit, atque abscessus duros, in pessima adeo ulcera, ut ossa quoque plerunque vitient, post longum tempus, definentes.”*<sup>11</sup>

8 ARRIZABALAGA, HENDERSON, FRENCH, The Great Pox 113–114.

9 Lajos GERGELY (Hg.), Orvosi mikrobiológia. (Semmelweis Kiadó Budapest 1999) 217–222; David A. WARRELL, Timothy M. VOX, John D. FIRTH (Hg.), Oxford Textbook of Medicine (Oxford University Press 2003) 607–617.

10 WARRELL, VOX, FIRTH, Oxford Textbook 608.

11 MANARDUS, Epist. 103.

When this (so called “new”) morbus appeared in the documents it is clearly visible that they realized that the process of the disease can be divided into different phases. According to recent medical knowledge venereal syphilis is caused by *Treponema pallidum* and it has different stages: primary-, secondary-, latent- and tertiary syphilis. This disease is usually human pathogen, meaning that under natural circumstances it only infects humans. The bacterium enters the abraded skin and after about three weeks of incubation, the first or primary phase of the infection starts with the appearance of an ulcer at the site of infection, usually on the genitals. An asymptomatic period follows this before the second phase of the disease commences, resulting in the appearance of rashes. Like the symptoms in the first phase these heal spontaneously without any medical treatment. The latent period follows and after this, a third – destructive – phase can develop (the central nervous system and other internal organs are involved). Any of the stages may be asymptomatic or absent.

### **Congenital or Hereditary syphilis**

*[...] sed quid dicemus de pueris non lactentibus, tres hoc anno curari pueros, unum etate trium annorum: alterum etate sex annorum et erat puella, tertium undecim annorum, isti non sumpserunt lac infectum quod, ut dicunt, fit ex sanguine infecto, a matrice ad mamillas a natura transmissio et c[etera] neque coiuerunt cum non sint potentes ad coitum, et multa alia exempla, que brevitatis gratia dimitto [...].”<sup>12</sup>*

According to our recent knowledge the chance for the transmission of syphilis by sexual contact is 30 %. At the turn of the 15<sup>th</sup> and 16<sup>th</sup> century this rate might have been much higher, which could be caused by a mutation of the micro-organism. All of those infections which are caused by *Treponema bacteria* – framboesia (yaws), pinta, endemic syphilis and venereal syphilis – the latter syphilis is the only one which is capable of congenital transmission. Since the body fluids of the individual are also contagious, infants could also become infected by breastfeeding.<sup>13</sup>

*Treponema Pallidum* causes very special deformities on the foetus of the infected mother. The possibility that the mother can bear her child, depends on the stage of her infection. If the mother had been infected recently, the pregnancy would usually end with an abortion or a pre-

12 Nicolaus MASSA, Liber de morbo Gallico: noviter editus in quo omnes modi posibles sanandi ipeum: mira quadam [et] artificiosa doctrina continentur: ut studiose lectori patebit. 1536, Capit. II. in quo declaratur quod non solum per contactus coitus, sed per alios contactus & per intrinsecam alterationem fit morbus gallicus.

13 “Visi tamen infantes nonnulli fuere, qui e suctu lactis a matre aut nutrice infecta consimiliter affecti sunt.” Girolamo FRACASTORO, De morbis contagiosis. De contagione et contagiosis morbi et eorum curatione Libri III (1546), Lib. II 359. At that time it was very common to hire wet nurses, therefore we have to calculate this form of infection as well, when we try to make conclusions about the health of the parents by analysing the case history of the offsprings.

mature birth. If the infected infant is born, he/she has syphilitic changes, which are typical for this disease appearing at birth or later during childhood. Characteristic symptoms can be seen on the body such as: rashes on the palms and soles, the skin is tumid around the lips, a bloody, mucilaginous liquid flows from the infant's nose, thickening and irregularities of can be recognized ('saddle-nose', 'sabre tibia'); later the growth of notched (Hutchinson's) teeth can be observed and after several years deafness and blindness occurs.<sup>14</sup>

There were numerous physicians from the 15–16<sup>th</sup> century – such as Jacques de Béthencourt, Paracelsus (c.1493–1541), Jean Fernel (1497/1506–1558), Nicoló Massa (1489–1569)<sup>15</sup> – who had soon observed and written down the connection between the mother's and the child's infection.

Nowadays those who advocated the Old World origin have an argument to prove their opinion: The affections, which were identified as leper but ended in recovery, might have been syphilis. Additionally on those accounts, which write about the sexual transmission of leper and its congenital form, might have been syphilis too.<sup>16</sup>

In the light of medical cognition on the pathogen, the clinical aspects of syphilis do not appear on the mother during pregnancy.<sup>17</sup> In the examined period, when births were more frequent, a fertile woman had more pregnancies than nowadays and therefore the time that a woman spent with bearing children was far longer. If we suppose, that pregnant women were asymptomatic, we can get a partial answer as to why there were mostly accounts about the syphilitic infection of famous men.

## Conclusion

If we monitor pregnancies and their outcome, the infection could be indicated. Written sources about famous historical families – such as

14 Kálmán KIRÁLY, István RÁCZ, Ibolya TÖRÖK (Hg.), *Bőr és nemibetegségek* (Budapest, 1982) 165–173; László MARÓDI, *Gyermekgyógyászat* (Budapest 2002) 291.

15 QUÉTEL, *History of Syphilis* 55–56; Jacques DE BÉTHENCOURT, *Nova penitentialis Quadragesima, nec non purgatorium in morbum Gallicum, sive Venereum ...* (Paris 1527); Aureolus Theophrastus Bombastus von HOHENHEIM, *Von der Französischen krankheit drey Bücher*. (Nürnberg, 1552). Paracelsus stated that the disease may be hereditary and those children, who became infected at the moment of conception would not be able to recover; Joannes FERNELIUS, *De luis Venereae curatione perfectissima...Numquam ante hac editus* (Antverpiae 1579); Richard PALMER, Nicolò Massa, his family and his fortune. In: *Medical History*, 25 (1981) 385–410. Nicolaus MASSA, *Liber de morbo Gallico: noviter editus in quo omnes modi possibiles sanandi ipeum: mira quadam [et] artificiosa doctrina continentur: ut studiose lectori patebit*, 1536.

16 SEFTON, *Great Pox* 592; About the mode of transmission of *Mycobacterium leprae* see: ROBERTS, MANCHESTER, *Archeology* 142; Danielle JACQUART, Claude THOMASSET, *Sexuality and Medicine in the Middle Ages* (Polity Press 1988) 183–188;

17 WARRELL, VOX, FIRTH, *Oxford Textbook* 609.

diaries, letters, chronicles, etc. – can be taken as a basis for investigation of hereditary syphilis.

To complete this work, a large-scale comparable research would be necessary in Europe, which would result in the comparison and analysis of concrete case histories in many aspects. The complexity of the project demands some experts, but the scientific achievements could be used in the fields of science. The symptoms of the nervous system – which could arise at the final stages of syphilis – the changes of the personality, the appearances of hereditary syphilis on the offspring's gives rise to additional questions and opportunities.