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Prevention Strategies and Changes in Sexual Mores in Response to the Outbreak of Syphilis in Europe in the Early Modern Age

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Abstract

In the same way as AIDS in the 20th century, syphilis was the sexual scourge of the 16th century. Both of these sexually transmitted diseases, AIDS and syphilis, placed women at the risk of becoming infected through sexual intercourse within marriage. Nothing is known about the individual strategies of women during the first European syphilis epidemic. On the basis of primary sources (in the form of archival material and personal letters), and of literary sources, this article tries to shed light on the preventive measures and behavioural choices adopted in Renaissance Italy. We take in account, in particular, the social and institutional context in which two structural factors were acting: the large-scale war involving long separation of spouses, and the diffusion of prostitution which offered more opportunities for men's extramarital sexuality.

Keywords: Syphilis epidemic; 16th century; Sexual behaviour; Prevention strategies; Women

The First Syphilis Pandemic

In 1494, the young king of France, Charles VIII, invaded Italy with an army of over 30,000 mercenary soldiers hired from all over Europe. In early 1495 (February 19th), his forces reached Naples, which was primarily defended by Spanish soldiers[1]. After holding the town for a few months, Charles VIII demobilised his army. By the summer of that year, mercenaries, infected with a mysterious, serious disease, returned to their native lands or moved elsewhere to wage war, spreading the disease across Europe, striking Italy, France and Switzerland at the beginning and infecting almost all European countries in the following four years [1-4]. When syphilis broke out in Italy in the summer of 1495, and almost simultaneously in the rest of Europe, the social and environmental context was ideal for its spread through the army mercenaries and the prostitutes whose numbers increased greatly in the Italian cities of the late 15th and early 16th centuries. The troops were quartered in towns where they remained long enough to facilitate long-term sexual relationships and opportunities for men's extramarital sex, which included rape and prostitution associated with the war [5].

Scholars of the time used a series of terms to refer to the new horrific plague: 'French disease,' 'Disease of Naples,' 'venereal lues,' 'greatpox' (in contrast to smallpox), and 'morbus gallicus.' Several decades after the beginning of the epidemic, the Veronese physician, poet, and astronomer Girolamo Fracastoro (1478–1553) gave the disease the name of syphilis in his famous "Syphilis sive morbus gallicus" [6].

The first accurate description of syphilis was provided by the Venetian military surgeon Marcello Cumano, who had taken his troops to the battle of Fornovo and fought alongside the armies of Charles VIII of France and the League of Venice. His medical account, founded on the observations of the soldiers, is most precise: the first

manifestation of the disease was the appearance of a painless skin ulceration localised on the penis. Sores and pustules then appeared all over the face and body, and were accompanied by joint pains and pruritus [2,7]. His contemporary Giovanni da Vigo, surgeon to Pope Julius II, describes the primary chancre on the genitalia followed by a latent period and the secondary stage of the disease with skin manifestations. He also mentions the severe pains that occurred, especially at night [8]. All contemporary sources, from physicians to chroniclers, to the sick who left personal stories, are unanimous in emphasising the violent and malignant character of syphilis at the beginning of the epidemic in the early 16th century [9]. The first manifestation of the disease was the appearance of a chancre-a single, painless, hardened ulcer at the site of inoculation. In men, the most commonly affected site was the penis. Sores and pustules then appeared over the face and body, and were accompanied by symptoms such as fever, headache, sore throat, skin lesions, swollen lymph nodes, and terrible pains in the bones, arms, and legs [6,7,9]. All contemporary observers agreed on its tremendous severity and frightening impact on the body.8 Syphilis - wrote the military physician Alessandro Benedetti (1450-1512) - makes "the entire body so repulsive to look at and causes such great suffering" [10]. At the very beginning of the epidemic, syphilis presented many clinical analogies with leprosy, so that the two diseased were closely associated by the people and even by the physicians [5] syphilitic roseola had its analogue in leprous erythema; the papules and tubercles of syphilis had their equivalent in the nodules of leprosy. However, syphilis was considered even more terrifying than leprosy, given its ability to disfigure and decompose the body. According to historical records, Cesare Borgia – "Duke Valentino" (1476-1507) – the illegitimate son of Pope Alexander VI, had to wear a black velvet mask to hide the lesions that scarred his face after he had been afflicted by syphilis [11]. Never in history had a new disease been analysed by physicians with such rapidity and effectiveness. That the contagion was spread through sexual intercourses was quickly acknowledged, although many physicians affirmed that other forms of contact could also transmit the disease. For example, the famous doctor and anatomist Niccolò Massa

of Padua, in his essay (written in 1507, but published in 1527), expresses his opinion on the major role of coitus in spreading the infection [12]. After the early years of the epidemic, however, there are no medical descriptions recognising a non-venereal mode of transmission except for those that observed the manifestations of congenital syphilis. In his prose treatise, written around the fourth decade of the 16th century, Fracastoro wrote that the infection could not take place at a distance or through intermediary carriers. Given the property of the 'seed' of the disease, which was considered 'not penetrating,' syphilis could not be transmitted through simple personto-person nearness or touch - the contact had to be very close 'as when two bodies mutually touched in warmth' which 'mainly happens during coitus' [13].

Institutional Response and Individual Strategies

Given the long incubation of syphilis, the difficulty of immediately identifying infected individuals, and the fact that the disease could be hidden at a later stage, the traditional public health tools of quarantine and sanitary cordons adopted against the plague by the Health Offices were blunt tools. [14,15] The most eminent European physicians suggested to the authorities that the only way to control the spread of syphilis was to regulate prostitution by curing the prostitutes in special institutions. However, this preventive measure was too difficult to implement. The organised response of the public health officials to the new scourge followed other models, which were similar in all European cities: to isolate occasional patients and to send them away from the cities those who were considered sexually deviant (prostitutes and other women of "loose morals"). A programme of treatment for individuals afflicted by syphilis, regardless of stage of disease, was developed in the major cities, towards the middle of the 16th century, and 'quarantine hospitals' ('incurable hospitals' in Italy) were implemented by civilian administrations of various European citystates such as Venice [16].

The treatment programme required periods of mandatory confinement for military forces, prostitutes, etc. It was impossible for public health measures to control all those at risk of transmitting the infection. The only reliable way to avoid syphilis was sexual selfcontrol, and changes in sexual behaviour. It had been clear from the beginning that this was the fundamental means of prevention of syphilis [17]. In addition, during the first phase of the epidemic it became apparent that individual preventive measures were useless for reducing syphilis risk for men. Some of the suggested measures derived from traditional advice on sexual hygiene by ancient Greek and Arabian writings and in particular by the great medieval medical practitioner William of Saliceto, who recommended vinegar lotions or water acetate before sexual activities. [18] A common practice of the 16th century was to anoint the penis with olive oil or fat [19]. These practices were based on beliefs regarding the possible infiltration of evil or poison through the pores. Thus, it was believed that spreading oil or grease on the genitals could close the pores, thereby preventing the infection. In the 16th century there seems to have been no practical application of the recently invented condom, developed by the anatomist Gabriele Falloppio [20]. It consisted of a linen bag - "at mensuram glandis" - impregnated with salt and herbs. It is not clear whether it had to be used before, during, or after sexual intercourse, to disinfect the penis. The condom was criticised by medical writers as "an armor against pleasure, and a cobweb against the danger." [3] In popular literature there are many allusions to changes in sexual habits: syphilis produced the diffusion of anal sex, thought to be safer [21]. In

a sonnet, the Tuscan poet Antonio Camelli complains of having contracted syphilis when he had had "normal" sexual intercourse, instead of anal sex [21-23].

The role of married men in sustaining transmission of syphilis was sufficiently demonstrated in Renaissance Italy during the so-called 'Italian Wars,' a series of conflicts from 1494 to 1559, which involved, at various times, most of the city-states of Italy, the Papal States, and the major states of Western Europe (France, Spain, the Holy Roman Empire, England). Derived from dynastic disputes over the Duchy of Milan and the Kingdom of Naples, the wars had become a general struggle for power and territory among princes and lords who assembled military companies of hired mercenaries, constantly in motion in a world in which prostitution was extremely widespread and where sexual relations linked people of different social classes and neighbourhoods [9]. Women: The behaviour that put women at the greatest risk of contracting a syphilis infection was sex within marriage and this is supported by the analysis of mortality data for deaths attributed to syphilis in Venice: the majority of women were either wives or widows. There is evidence from paleopathological and anthropological studies on Italian renaissance mummies that many noblewomen of the upper classes were afflicted by venereal infection [24-26]. The buccal surfaces of the teeth of Isabella d'Aragona, duchess of Milan (1470-1524), were covered by a black patina with high mercury levels, which can be attributed to chronic mercury intoxication, commonly used as a treatment against the disease: mercury had been used to treat skin conditions since the 1300's. Many important physicians proclaimed that mercury was the only proper cure for syphilis against another early treatment of syphilis employed in the 16th century: guaiacum wood, an evergreen tree imported from the New World. The cure consisted in an infusion that the patient drank, and in a sweat chamber where the patient breathed the warm vapours of guaiac resin.

Maria d'Aragona, Marquise of Vasto (1503-1568), famous for her beauty, had suffered from a treponemal, probably venereal, infection. [26] Maria Salviati, wife of the legendary Renaissance warrior Giovanni de'Medici, also known as "Giovanni dalle Bande Nere" (1498-1526) was afflicted with syphilis, which had reached the tertiary phase as shown from cranial lesions (Figures 1 and 2).



Figure 1: Skull of Maria Salviati



Figure 2: Portrait of Maria Salviati

As emerges from private correspondences and from folk literature, it is clear that married women took the initiative to reduce the risk imposed on them by the sexual activities of their husbands. Two sources provide a broad view of this situation: the former relates to the higher layers of society (as the majority of the Italian population was illiterate in the sixteenth century there is essentially no correspondence). The latter survived through oral story telling traditions and fills the void of the written word in bringing forward historical information about the lower social classes. In an example of the former, a rich collection of letters of the Court of Mantua (in the south-east of the Lombardy region) describes a marital case history that of the Francesco, Marquis of Mantua (1466-1519) and of his wife Isabella d'Este, lords of the Gonzaga family, one of the most powerful and richest families in Italy. [27-29] While the marquis afflicted with syphilis, was cured with mercury, [30,31] the most common treatment, Lady Isabella moved away from home and travelled. As detailed in her letters, she was first in Milan, then in Rome and finally in Naples. During a pause of the disease in February 1513, the Secretary of the Marquis wrote to Lady Isabella that the cure had been effective and, therefore, that the Marquis of Mantua had expressed his desire to return to an intimate marital relationship. However, Lady Isabella did not accept the request, and was still far from home in March [29].

Even in popular contexts, married women were aware of the risks and refused to have sex with their husbands, as shown by some folk ballads. The satiric and burlesque poet Agnolo Firenzuola (1493- c. 1545) - exalting the therapeutic virtues of guaiac or 'Saint wood' [32,33] (Figure 3) - wrote, for example, that it cured the sufferers of syphilis so that they could 'return to sleep with their wives,' confirming that the attitude of the wives to refuse intimate relationships during the illness must have been widespread, although "invisible" to treaties and medical writings.



Figure 3: Guaiac traitment

Conclusions

The impact of early outbreaks of syphilis in the late 15th century were especially devastating both for the physical symptoms and social consequences of the disease. The spread of the disease through sexual intercourse was quickly acknowledged. The medical literature of the time reports on a quantity of remedies, health practices and personal preventive measures used by men to reduce the risk of syphilis. Some of these treatments deriving from the learned tradition were based on the principles of sexual hygiene cited in ancient medical texts from the Antiquity to the Middle Ages. In addition to pre-coital prophylactic measures, there were post-coital practices, which were much more numerous. Other measures taken immediately after intercourse consisted in applying warm urine on the genitals, or in long and thorough washing with cold water, followed by wrapping the penis with vinegar soaked cloths. It is in this period that the history of condoms begins.

Completely unknown are instead the private prevention practices of married women, who even in those days were very vulnerable to sexually transmitted infections. Sex within marriage in the cultural and social context of the late 15th century put women at great risk of syphilis infection: the movement of armies connected to the Italian wars (1494-98), which implied long periods of separation of the couples, the high levels of promiscuity, as well as the diffusion of prostitution (the main vector of the disease), encouraged husbands' extramarital sexual intercourse. There is a lack of first-hand written information. Syphilis was a "secret malady', and women tried to hide their sexually-transmitted infections. Despite the difficulties in finding information, some data emerge from the searches in archival documents, literary sources, and vernacular poems: there was diffused awareness that sexual self-control was the primary and most effective tool for the prevention of syphilis. Married women were the first to take concrete initiatives aimed at diminishing the risks caused by the sexual activities of their husbands, at refusing sexual intercourse, and asking their spouses to undergo treatment with guaiac or mercury. At that time, these decision-making powers were of course the prerogative of elite married women who could exercise high self-care and power of choice.

References

- Arrizabalaga J, Henderson J, French R (1997) The Great Pox: The French Disease in Renaissance Europe. Yale University Press, New Haven and
- Carmichael AG (1998) The great pox: the French disease in Renaissance Europe. Med Hist 42: 255-256.
- Tognotti E (2006) L'altra faccia di Venere. Franco Angeli, Milano. 3
- Quétel C (1986) Le mal de Naples. Robert Laffont, Paris. 4.
- Muir E, Ruggiero G, Foa A (1990) The new and the old: the spread of syphilis (1494-1530). In: Muir E, Ruggiero G, editors. Sex and gender in historical perspective. Baltimore: Johns Hopkins University Press; p.
- Fracastoro H (1530) Syphilis, sive morbus gallicus. Stefano Nicolini da Sabbio e fratelli, Veronae.
- Da Vigo G. Practica copiosa in artem chirurgica Rome 1514.
- Tognotti E (2009) The rise and fall of syphilis in Renaissance Europe. J Med Humanit 30: 99-113.

- Oriel JD (1984) The scars of Venus. A history of venereology. Springer Verlag London.
- Benedetti A (1496) Diaria de bello Carolino. Aldus Manutius Romanus, 10. Venice.
- Bradford S (1981) Futura Publications, London.
- Massa N (1527) Liber de morbo Gallico, noviter editus.
- Fracastoro H (1548) De contagione et contagiosis morbis et eorum curatorie ,libri III . WC. Putnam, New York.
- Tognotti E (2013) Lessons from the history of quarantine, from plague to influenza A. Emerg Infect Dis 19: 254-259.
- Cipolla C (1976) Public health and the medical profession in the Renaissance. Cambridge University Press.
- McGough L (2010) Gender, sexuality, and syphilis in early modern Venice: The disease that came to stay (early modern history: society and culture). Palgrave Macmillan.
- Smith CV (2009) Syphilis and theories of contagion. KCKCC e-Journal [serial online] 3.
- John of Gaddesden (1492) Rosa Anglica practica medicine a capita ad pedes. Pavia: Franciscus Girardengus and Joannes Antonius Birreta.
- 19. Balzer F. Malattie veneree e sifilitiche. Torino: UTET, 534.
- Waugh M (2010) Daniel Turner (1667-1741): syphillis and the condum. Int J STD AIDS 21: 546-548.
- Cammelli A (1908) Sonetti faceti. Jovene, Napoli, 294.
- Saslow J (1986) Garymede in the Renaissance. Yale University Press, New Haven and London.
- Tannahill R (1980) Sex in history. Stein and Day, New York.
- 24. Fornaciari G (1984) The mummies of the Abbey of Saint Domenico Maggiore in Naples. Paleopathol Newsl: 10-14.
- Fornaciari G, Castagna M, Tognetti A, Tornaboni D, Bruno J (1989) Syphilis in a Renaissance Italian mummy. Lancet 2: 614.
- Fornaciari G (2006) [The Aragonese mummies of the Basilica of Saint Domenico Maggiore in Naples]. Med Secoli 18: 843-864.
- State Archive of Mantua, Arch. Gonzaga, Corrispondenza colla marchesa Isabella d'Este, Folders. 330, 332, 400, 1890-1902, 2106-2133, 2904, 2911, 2916-2917, 2929, 2935, 2963, 2991-3000.
- Luzio A (1922) L'Archivio Gonzaga di Mantova. La corrispondenza familiare, amministrativa e diplomatica, II, Accademia virgiliana. Accademia Virgiliana, Mantova.
- Luzio A, Renier L (1885) Contributo alla storia del Malfrancese nei costumi e nella letteratura italiana del sec. XVI. Giornale storico della Letteratura italiana 5: 408-432.
- O'Shea JG (1990) 'Two minutes with venus, two years with mercury'-mercury as an antisyphilitic chemotherapeutic agent. J R Soc Med 83: 392-395.
- Herbert M. Shelton (1996) Syphilis: Werewolf of Medicine. Health Research, WA.
- Von Hutten U (1540) Of the Wood Called Guiacum. Translated by 32. Thomas Paynel, Thomas Berthelet, London,
- Firenzuola A (1848) Opere ridotte a miglior lezione e corredate di note di B. Bianchi. Le Monnier, Firenze. (collection of the writing of the poet).