

Škrljevo Disease: Between Myth and Reality

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At the end of the 18th century, an epidemic of allegedly unknown disease characterized by inconsistent symptoms broke up in Istria, Croatia. The disease was called *Škrljevo disease* after the village Škrljevo, near Rijeka, where it first emerged. We critically evaluated archive material, books, and papers on this disease published during the last 200 years. According to these records, the "illness" spread quite rapidly, affecting around 13,000 people at its peak around the mid-19th century. Dozens of papers, books, and dissertations were written, trying to elucidate the nature and cause of the "epidemic." By the end of the 19th century, the "disease" had mostly disappeared, but the questions it had raised did not. We believe that this "disease" was not a real epidemic, but actually the rise (and fall) of a "fashionable diagnosis". We recognized certain similarities in ethical and popular aspects between the story of the Škrljevo disease and acquired immunodeficiency syndrome.

Key words: Croatia; disease outbreaks; history of medicine, 19th Cent.; syphilis

The epidemic of severe acute respiratory syndrome (SARS), which has until recently spread in the Far East, has taken world population and health-care systems by a surprise (1). The medical and scientific reality according to objective parameters, such as contagiousness index and mortality rate, is often less important than the reality created by mass media, since it is the latter that influence investments, currency rates, bond market, and tourism.

In the past, epidemics were far less surprising and certainly less analyzed phenomena. They did, of course, influence demography and trade, but since poor medical knowledge could not provide much of an explanation, disease outbreaks were perceived as periodical natural disasters or divine punishments (2). New generations of practical minds, entrance into the industrial age, and revolutionary dethroning of authorities at the end of the 18th century created a particularly fruitful context for studying public and medical attitude toward epidemics. Although medical science was still quite speculative at the time, people had already searched for materialistic explanations. Besides, these were times when European continental road network and Napoleonic wars favored the spread not only of disease and trade, but also of knowledge.

Although Škrljevo village near the city of Rijeka, Croatia, gained in importance after the *Carolina* road had been opened to traffic in 1728 (3), it would probably have never broken from anonymity had there not been an "epidemic" of a particular kind in that area. This disease, proclaimed to be totally unknown (4),

quickly began to "spread" and allegedly affected, at its peak around the middle of the 19th century, around 13,000 people in the Rijeka region (more than a third of the population of the same region). The aim of the present study is to critically explore the nature of this "epidemic."

Data Sources

To investigate the impact of the so-called "Škrljevo disease" on the political and social relations in the region, we searched the Rijeka State Archives for written documents on the disease and analyzed the inaugural dissertations (some of them published) and the most important studies and reports, published in the period from the first half of the 19th century up to present times.

Results

The first written report on the disease was addressed to the municipal authorities of Rijeka by the City prime physician, Josip Mašić, on June 28, 1800. In this letter, Mašić suggested that the disease was actually syphilis, a notion which was widely accepted only much later. The name of the disease, however, was conceived by another physician, Giovanni Battista Cambieri (1754-1838) from Lombardy. Cambieri, a brilliant mind, came to Rijeka in 1797 and was a local physician in Škrljevo at the time of the "epidemic". He was responsible for *morbus de Scharlievo* becoming a topic of interest in European medical circles. Together with the chief of the medical staff of the French army in the Illyric Provinces, Bagneries, Cambieri reported the "epidemic" to the Medical Academy in Paris and to the Viennese Professor Johann Peter Frank (1745-1821). Frank was invited in

1801 by Austrian government to find a cure for the "Škrljevo disease" (4). In 1816, Cambieri received permission from the authorities to experiment with potential therapies for the disease. He also implemented the antiepidemic measures, with a help from a Pest dermatologist Ignaz Stahly (5).

From time to time, the Škrljevo "epidemic" created a real panic. In the first report by Mašić, 2,600 diseased were recorded (6). Francesco Saverio Verson found 140 patients in the Volosko district in 1832 (7). Under the diagnosis of the "mal de Škrljevo," 2,259 persons were hospitalized in Rijeka in the period between 1818 and 1825, and 6,117 in Kraljevica (Fig. 1) (8). Curiously, the old town of Mošćenice was not affected by the disease. Although the city of Rijeka itself was essentially less struck by the "epidemic" than its surroundings, Lagneau, in his famous 1828 textbook on syphilitic diseases, called the disease "mal di Fiume," whereas Antonio Carlo Lorenzutti, in his graduation thesis published in Padua in 1830, referred to the disease as "lues flumicensis." (9) Europe, however, did not speculate only on the name of the illness, but also on its cause. Santes (10), de Moulon (11), and Rizzi (12) chose this topic for their dissertations in Padua (13), and Melzer (14) and Backes (15) in Vienna. Several other authors also published their observations on the topic (16-23).



Figure 1. Letter of discharge from the hospital for the Škrljevo disease in Kraljevica, issued to Catta Vruglianich on July 29, 1820.

Some viewed the Škrljevo disease as a form of leprosy or even scurvy (24). The symptoms of the developed disease were not uniform at all. Slovenian physician Julius Zeme described a case of putrid tonsillitis with ulcerous changes on the genitals (4), whereas Anton Jevnikar reported red maculae, noduli, ulcerations, vesiculae, angina, joint contracture, and other symptoms (4). On the other hand, Johann Peter Frank emphasized that, unlike syphilis, the "Škrljevo disease" rarely affected genitals and lymphatic system (4).

While Europe was speculating, Rijeka had to live through the "epidemic" and fight it. Quarantines were instituted in Kraljevica and Bakar, while special "judges" took oath to report each new case in their community (Fig. 2) (25). As for therapy, the attempts varied: Cambieri recommended evaporated quicksil-



Figure 2. Passport of the Royal Government of the Littoral, issued in Rijeka on January 17, 1829, to a sailor named Antonio Pavlovich from Grizane near Škrljevo, proving that he does not have the Škrljevo disease.

ver sulfide and zinc sulfide (24). In Labin, in Istria, patients were kept for hours in barrels, dipped in water mixed with clay mud and cow manure (24). Various preparations of quicksilver were also recommended by A. Jevnikar, as well as by J. P. Frank (4), whereas Giacich emphasized the effectiveness of vegetal substances and iodine (24).

Cambieri's career was tightly related to the Škrljevo epidemic. In 1818, he was an internist in the *Santo Spirito* hospital in Rijeka, but soon became a patrician city councilor and the prime physician of the entire Illyric Littoral. Precisely for his work on the Škrljevo disease (*Storia della malattia detta Skrielievo ossia di una particolare forma di sifilide, manifestatasi in alcuni distretti del Litorale Illirico*, ref. 26), he became famous in the medical world as well.

Discussion

How the question of the nature of the Škrljevo disease was "resolved" is more or less well known: after a few decades of debate, European medical authorities agreed that the disease can be considered an endemic form of syphilis (27,28). Why an epidemic of such proportions broke out, however, has not been explained. People living in that region at the time of

epidemics were certainly not so promiscuous, and could not have become promiscuous so suddenly. Another intriguing fact is the coinciding of the epidemic with the pan-European movements of French troops. French soldiers could have brought the disease, but the local population, at least at the beginning of the "epidemic," might also have tried to avoid mobilization by simulating the disease. One of the possible explanations of this mystery could also be fashion, a reason so rarely taken into consideration. The influence of the so-called "official medical stand" (or, in our times, mass media) on the diagnosing capabilities of physicians has been greatly underestimated. This kind of "fashionable diagnosing" is currently related to attention-deficit hyperactivity disorder. But probably the best historical example for it was the diagnosis of hysteria in France in 1880's, politicized as a result of the positivistic anti-clerical alliance between psychiatry and politics (involving Gambetta, Bert, Charcot, and Bourneville) (29). In addition, because of Charcot's rise, "hysteria" was promoted into the most studied and most popular disease, the diagnostic criteria of which were standardized and broadly used (29). In favor of the "fashion hypothesis" also speaks the fact that, in the majority of cases of *morbus de Scharlievo*, prodromal phase of the disease had very common symptoms, like general prostration, pain, and hoarseness, whereas more specific symptoms, like ulcerations of mouth mucous membrane and facial skin, appeared rarely and after quite a long period (24). After a thorough examination of both literature and the situation on the terrain, Croatian dermatovenerologist Božo Peričić came to the most probable conclusion that the "Škrljevo disease" should not be considered a disease *per se*, but a diagnosis covering lues, lupus, and probably many other pathological entities (30).

The "overquarantization" (more than 8,000 hospitalized between 1818 and 1825, ref. 8) and stigmatization of the diseased (cf. the introduction of local "judges", ref. 25), as seen in the case of the Škrljevo disease, was a logical result of the fear from the unknown. This was not related to a specific historical context, as it is today with acquired immunodeficiency disease (AIDS), which certainly is a real epidemic unlike the Škrljevo disease. AIDS provoked some very similar social reactions at the end of the 20th century (31). Knowledge does help at acquiring realistic attitude toward a peril, but only when reasoning at an abstract level: when a peril knocks on our door, "knowledge" is often replaced by much less sophisticated instincts and actions.

Although some modern researchers adhere to the endemic-syphilis hypothesis of the Škrljevo disease (4,5,32), our own research and interpretation strongly support the view of the "Škrljevo disease" as a "pseudo-epidemic." The debate on the nature of the "Škrljevo disease" is still going on (33); the "Škrljevo case" offers many precious lessons on "new" diseases, "epidemics," and hidden social, historical, and cultural influence on public health. Moreover, the story of the "Škrljevo disease" is a nice paradigm of how a little anonymous village can attract attention of an entire continent. Even if it is not an example of the

course of an epidemic, it is certainly a well-documented example of the course of epidemic mentality, which in most parts and aspects can be considered valid.

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