

God's Punishment or Bad Strategy: Anti-Epidemic Measures in the Lower Neretva Basin at the Time of Cholera in 1886

Mario Wokaunn¹, Stella Fatović-Ferenčić², Ivan Jurić³ and Marijo Bekić¹

¹ Dubrovnik General Hospital, Department of Surgery, Dubrovnik, Croatia

² Croatian Academy of Sciences and Arts, Department for the History and Philosophy of Sciences, Division for the History of Medicine, Zagreb, Croatia

³ Metković, Croatia

ABSTRACT

The epidemic of cholera that took place in the Neretva basin in 1886 was part of the fifth pandemic wave that was spreading throughout Europe. Based on the death records, vital statistics and the newspaper articles from that period, in this paper we present the emergence and the course this epidemic. In the context of analysis and experience of the epidemic of cholera in the lower Neretva basin, the newspaper articles have been recognized as a sensitive register of the changes of behavioural patterns, the way of speaking, the mechanisms of reacting and adjusting to the spreading epidemic, but also the resistance to it. It is based on this material that we can make conclusions about the relationship between the individual and the collective in the time of danger, as well as about the particularities of historical events that have been left out in other sources. Two potential paths for cholera to enter the area of the lower Neretva basin have been identified: one from the sea and the other from land, via the neighbouring country of Bosnia and Herzegovina. Quarantine measures had been taken in order to prevent the onslaught of the epidemic, a sanitary cordon was organized, disinfection of the land was carried out and a cholera hospital organized in Metković. However, despite the undertaken measures, an inefficiency of the government organs was obvious, because their actions mainly applied to formal fulfilment of anti-epidemic measures and they quite easily handed over individual initiatives to physicians. The analysis of strategies concerning the application of anti-epidemic measures in the past can be useful for learning more about the multilayered nature of social mechanisms in the time of epidemics, which makes it convincing and valuable even in the present day.

Key words: history of medicine, cholera, 19th century, the lower Neretva basin, Croatia

Introduction

Cholera is in historiography described as a disease that had several pandemic outbreaks and ravaged the 19th century Europe. It reached our region partly from Turkey, via Bosnia, and partly from the West, via Venice, Trieste and our local ports. It had initiated a whole range of health measures, and among medical and scientific circles it spurred the development of hygiene, epidemiology, microbiology and immunology. It first appeared in our parts in 1836, in Zagreb and its surroundings. The following outbreak came in 1846, after a decade-long calm, breaking through the protection made by the military and health cordons, so the disease spread throughout the

Austro-Hungarian Empire. According to some indicators, 1.8% of the Croatian population, or 16.478 people, were infected by cholera. In 1857 the Royal Governing Board for Dalmatia, Croatia and Slavonia, after acknowledging the reports of the permanent Land's Doctors' Union, issued a »Recommendation for the activities of political regions and health workers in circumstances of a contagious disease generally, particularly cholera«, which was observed in the time of the spreading danger of cholera¹. The points of this Recommendation were not changed before 1865, when the fourth pandemic of cholera reached Croatia, and they were published either sep-

arately or in newspapers usually just before the threat of the arriving outbreak of the epidemic wave².

The nature of the cholera epidemics emphasized the necessity of good organization of health-care services and strongly moulded the educational health activities within the general health and educational systems. The fifth wave of cholera epidemic begun in 1883. It came originally from Asia, and in the following year it spread from Egypt to Europe. In the spring of 1886 cholera appeared in Italian ports of Venice, Trieste, Bari, which was a signal for alert, especially to Dalmatian ports that were connected with the mentioned Italian cities³.

The lower Neretva basin, which was a bordering region between the province of Dalmatia and Bosnia and Herzegovina (then a part of the Ottoman Empire) was not exempt from the events that were to take place. Between 1880 and 1889 the course of the river Neretva was being adapted for navigation. After building the navigating canal about 22 km long, the Neretva became navigable from its mouth into the Adriatic Sea up to Metković. Although the melioration of the Neretva swamps had not yet been planned at that time, the adjustment of the river for navigation was supposed to enable a natural melioration of these swamps through about twenty outlets (small tunnels) running under the embankments dug out on both banks of the Neretva river⁴. Despite all the efforts, it took many more years to protect the rich soil from being washed away by the Neretva waters. Before the enormous quantity of water gathered by the melting of snow in the Bosnian mountains, the poorly constructed embankments gave way easily. In early spring flooding of the Neretva river into the very heart of Metković was an expected and a usual thing, recurring regularly almost until the 1970s.

However, on 24 March 1887 the Neretva dragged in something quite unexpected. Looking at the flooded central square (Plokata) the inhabitants of Metković witnessed a shocking scene – dead bodies floating on the water. Those were the bodies of those who had died of cholera and who had been buried almost a year before during the epidemic wave of cholera. It did not take long for the ordinary and uneducated folk to start asking the question... »whether it was God's punishment for the quick and religiously improper burial of the dead at the time of the epidemic«⁵.

Methods

In this paper we have reconstructed the beginning and the development of the epidemic that took place in the lower Neretva basin in 1886. For this purpose we have researched the sources of the State Archives in Zadar, the University Library in Split, especially the vital statistics of the Roman-Catholic parishes of Metković and Komin, the Archive of the Cadastre Office in Metković, the printed media from the time of the epidemic, and the collection in the State Archive in Zadar of telegrams sent away by the local authorities in Metković and Split to the headquarters in Zadar, concerned with the

epidemic of cholera in the Neretva region. Besides the abovementioned, we have also used the literature and documents about cholera in the Division of Medical History of the Croatian Academy of Sciences and Arts. The aim has been to reconstruct the beginning and the development of the epidemic of cholera in the lower Neretva basin and determine where it came from and the development of its outbreak. Besides, we have also analysed the mechanisms of cooperation between the governing-administrative organs and medical doctors concerning the organization and realization of anti-epidemic measures, as well as the role of public media in distribution of information and education of the people concerning health issues.

Results

Circumstances in the lower Neretva basin in the second half of the 19 century

Thanks to its port, in the second half of the 19th century Metković turned from an insignificant settlement into a famous trading, administrative, industrial and cultural centre of the lower Neretva basin, going through a great industrial and cultural transformation. By building the roads along the Neretva river towards the interior, first of all the gravel road Metković-Mostar (1865), the railroad Metković-Mostar (the first one in southern Croatia – 1885), with an outlet towards Sarajevo and Vienna, the regulation of the riverbed of the Neretva for navigation (1881–1888), and the building of initially the wooden and then the rail bridge across the Neretva, that part of Croatia became a strategically important meeting place between the Mediterranean and continental Europe⁴.

Although trade was rapidly developing, the majority of the population still struggled to survive, working mainly in the fields, keeping livestock, hunting and fishing. The fast industrial development gradually affected the cultural transformation, but the hygiene and the living conditions were still at a rather low level. This in a way facilitated the appearance of diseases in this region, some of which were endemic. Testimonies about them have been bequeathed us by contemporary physicians, like for example Josip Antun Pujati, Franjo Lanza and others. Lanza, for instance, wrote an essay in 1842⁶ in which he described the pathocenoses characteristic of this area. It is interesting also because it points to the contemporary ideas about etiology and pathogenesis of cholera that he included in the category of gall diarrheas. According to his notes, these diarrheas appear endemically in late in summer and he considers them »similar to Indian gall dysentery, sometimes even genuine cholera, to which it frequently reminds both by its form and by its characteristics«. Concerning the fact that these diseases came out of the same source, the essay goes on to tell that the gall diarrhea in the lower Neretva basin appeared regularly every year under the same circumstances under which these diseases appeared in India. Lanza states that one year previously many such cases appeared among the population of Opuzen (Fort'Opus) and in

some other places nearby. Those who contracted the disease died very shortly after the disease took the form identical with Indian cholera (»vomiting, blackish liquid diarrhea, mixed with some fluffy floating yellowish matter that exudes a particular smell of liver and blood, which is characteristic also for the yellow fever, an illness very similar to diarrhea or the endemic Neretva liver diarrhea, but which gives the patient the general condition of jaundice, however with a much less urgent need for bowel movements...«) Lanza also minutely describes the symptoms of the disease based on his experience and observation: »cramps are frequent, there is a fierce pain, eyes sink in the skull, dark-blue circles above eyes appear, the pulse weakens, there are no intermittent fevers, the thirst is uncontrollable, there are bouts of coldness and the distortion of the overall physiognomy, after which death is certain, just like with cholera«⁷.

Other doctors also wrote about the appearance of cholera in the first half of the 19th century in Dalmatia, like for example a physician from Trogir A. Carineo, who described the cholera epidemics in 1836, 1849 and 1855⁸ while a doctor from Zadar, V. Trigari, published a brochure on the first cases of cholera in Zadar in 1849⁹.

Alongside malaria, intestinal diseases and cholera, the swampy area around Metković was additionally marked by its isolation and poverty, placing it in the minds of visitors or temporary health-care workers as an extremely unfavourable living area. The stigma survived in the saying »Neretva, cursed by God«, and it contributed to the decision made in the early 20th century to make this area suitable for the isolation of the lepers, for whom a leprosarium was built here in 1905 the last one in our territory.¹⁰

Reconstruction of the beginning of the cholera epidemic in Metković

The works on the regulation of the riverbed of the Neretva for navigation between 1881 and 1888, and the arrival of a large number of workers from the neighbouring regions of Dalmatia and Herzegovina, made this area even more pliable for contagious diseases to spread, particularly cholera. The epidemic lasted from 18 August to 14 September 1886. The number of the infected and the deceased has been followed based on two sources: the living statistics of the parishes of Metković and Komin¹¹, and the contemporary printed media, mostly Narodni list and Il Dalmata. According to death records of the parishes it is evident that first victim of the cholera epidemic Mato Okmadžić was buried on 19 August 1866 in the parish graveyard. The next victim was Jacinto Čičin from Šibenik, who died on 20 August in the port of Metković, at the age of 33, on the steamship Cavalere de Chlumecky at which he was a cook. He was buried on 20 August. The cause of death of all the listed was expressed as kratelj (cholera). Others who died in this epidemic were buried in the graveyard for the cholera victims. According to death records it is evident that thirty persons died in Metković between 19 August 1886 and 14 September 1886 among them eleven citizens of Metković.

The rest were from elsewhere, including two persons from Austria, two from Trieste and Šibenik, and one person each from other, mainly coastal places. Out of the total number of the deceased 16 were men and 14 women and two female children aged ten and thirteen. The average age of the deceased was 30.7 years.

While the living statistics revealed just the data of those who died, from the daily press we can decipher the number of the infected, deceased and recovered – based on the telegrams that arrived to the editorial office, then the telegrams sent by the local authorities to the headquarters in Zadar, as well as from the telegrams sent by the governor Dragutin Blažeković to the interior minister in Vienna (Figure 1). The data from these two groups of sources, however, do not correspond completely. Another example of it is also the table published in the Narodni list in its tenth issue. Although the results concerning the number of the deceased are somewhat different from those recorded in the death records, we can make out that the epidemic picked on 21 and 22 August, when 23 people got infected, 14 died within the three following days, and only two managed to recover. After 23 August the epidemic gradually abated, although 1–2 persons were being infected daily, until 12 September, when the last cholera infection was recorded (Figure 2).

According to the information published in Narodni list¹², the first case of cholera was recorded in Metković on 18 August 1886, when suddenly 5 persons contracted the disease accompanied with its characteristic symp-

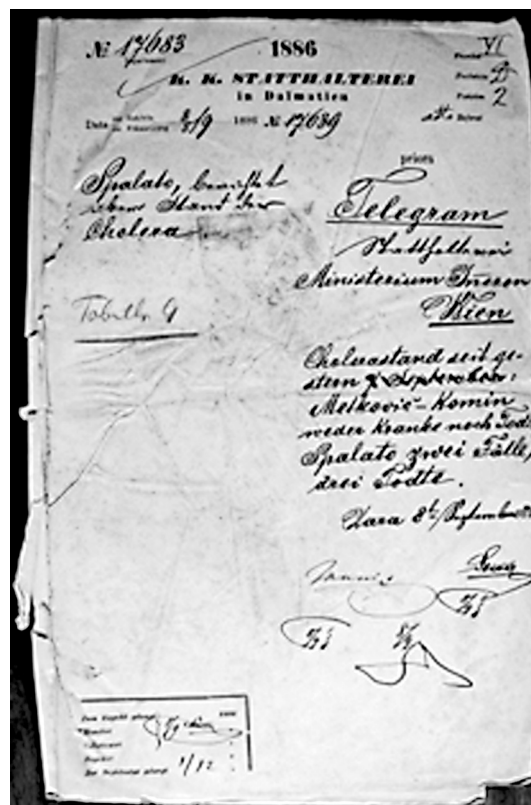


Fig. 1. Telegram reporting the cases of disease.

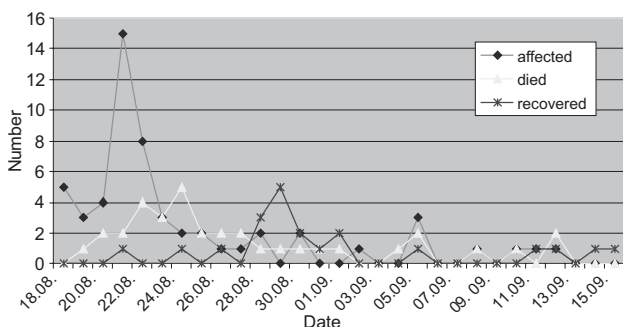


Fig. 2. Cholera epidemic in Donje Poneretlje in 1886.

toms. The very next day, 19 August, three patients died: the first casualty was Mato Okmadžić, a port worker aged 37. The steamship *Cavalere de Chlumecky* ran regularly between Metković and Ston. It sailed out of the port of Metković on 19 August on its regular line to Ston. There were 7 crew members and 17 passengers, out of which three were already showing signs of the disease. This is why they were not allowed to embark in Ston, but the ship with all the passengers was sent to Meljine, Montenegro, to a quarantine lazaret house¹².

The newspapers also reveal the facts about the blockade of traffic, introduction of quarantine as well as the sanitary cordon. All land and maritime traffic to and from Metković was interrupted on 20 August¹², and the blockade lasted until 8 October 1886¹³. A telegram sent off on 21 August 1886 to the Narodni list in Zadar shows the revolt of the passengers who found themselves in Metković. It reads: »There is a fair number of passengers here, but we cannot go from here either on a train or a coach or a ship, for we are being sent back whichever way we try to leave. So, are we forced to die in Metković? We ask of the high government to provide for us to leave. Passengers in Metković«¹². The passengers in panic who accidentally found themselves in Metković talk about complete isolation of the infected area, but also ask of the provincial authorities to get them out of the threatening lethal danger.

The way the isolation measures were taken can also be seen in the following newspaper article: »Due to the ordered seven-day isolation for passengers from Metković, Opuzen and Neum, the rail traffic has been restricted between Ugljan and Metković to the route between Ugljan and Vrgorac, and the rail traffic between Mostar and Metković has been restricted to the line Mostar – Čapljina. The fast line of Lloyd steamships between Split and Metković has been stopped, and Lloyd's and Rismond's steamships also restrict their routes from Split to Opuzen, while post between Opuzen and Metković is dispatched by land. Sending of books and small packages to Mostar and Sarajevo, until further orders, will be done from Vrgorac via Ljubuški and Čapljina, and larger packages from Dubrovnik via Ljubinj and Stolac to Dumanović«¹⁴.

As soon as 21 August the disease rapidly advanced, and the newspapers wrote about 17 newly infected, out

of which 4 passed away. Judging by the newspaper reports, the infected were not the natives but probably workers, who had come in large numbers to work on the regulation of the course of the Neretva riverbed. The Epidemic also spread to the neighbouring settlements of Opuzen and Komin. While the daily newspapers reported on famine in Komin which was completely cut off from the rest of the world, the inhabitants of Opuzen praised in the local press their authorities which on time took all necessary measures to thwart the epidemic as well as famine. Between 22 August and 5 September 1886, 18 out of 751 inhabitants of Opuzen got infected and 10 died. However, the situation in Komin was much graver concerning both the number of the infected and the deaths. Out of 21 infected 18 of them died¹⁵.

The data about the epidemic of cholera according to the Narodni list are showed in a table in the Narodni list dated 18 September 1886. The newspaper states that during the epidemic of cholera in Metković there were a total of 55 infected, 35 deceased and 20 who recovered. Based on these data, the epidemic ceased on 13 September when the last case of infection was reported, as well as the last death outcome. The data published in newspapers and within the death records, differed probably due to incomplete communication between reporters and physicians (the reporters were journalists but also representatives of local authorities) or due to possible technical slips in transcripts.

From the newspapers we can derive that the epidemic was gone by October. Therefore on 10 October 1886 the lower-ranking officials of the provincial government, counsellor Dragan Budisavljević and the higher land surveyor Henich, arrived on and on 12 October a thanks giving mass was performed¹⁶. Simultaneously, the main protagonists of the project of thwarting the cholera leave the area: Dr. Lujo Mazzi Jr. goes to Makarska with diminished health and quite disappointed, Dr. Karlo Vipauc gets back to Korčula, Dr. Gustav Nagy is in Komin, which is a few kilometres to the south from Metković, and which is in complete isolation.

Measures taken against the epidemic: the cholera hospital, disinfection and burial of the dead

Health-care institutions have always been understaffed in the area of the lower Neretva basin, and there were times when this region was without permanent physician service. The doctors here usually remained only temporarily, in passing by or coming with a particular aim of stopping some of the epidemics, as was the case with cholera. One of the newspaper articles from 1867, for example, praises Dr. Samohod »who as a man of intelligence and heart developed an unusual activity in the hours so critical for the town and thus deserved general admiration and gratitude«¹⁷. This was probably dedicated to Niko Samohod, a doctor originally from the island of Hvar. He successfully cured those who had the so-called reversible (three-day) fever, and because of Croatian national feelings at the time of the national rebirth in Dalmatia, he came into conflict with Jakov Dunkić, the

municipal secretary, an autonomist, who took away from him the municipal subsidy of 250 florins a year. Dr. Samohod left Metković, and so the town remained without a doctor for several years. The pharmacy in Metković was opened on 31 March 1881¹⁸. Those who had first suspicions about cholera in 1886 and informed the authorities about it were the then municipal doctor in Metković Dr. Lujo Mazzi jr., the military physician Dr. Hayeck and the regional physician Dr. Gustav Nagy. Still, almost everyone in authority doubted their diagnoses – the Provincial Health Council in Zadar, political authorities in Metković, and several doctors from Zadar and Split¹⁹. This is why the provincial civil and military authorities, not wanting to leave anything to chance, ordered »the more skilful doctors« to go to the infested area of Metković, Komin and Opuzen. The task had been assigned to the respectable and experienced regional physician in Korčula dr. Karlo Vipauc, who soon confirmed that the disease was indeed cholera. The provincial government in Zadar accepted the expertise of Dr. Vipauc and sent regular reports about the newly created situation to the Inner Ministry in Vienna²⁰.

The measures to prevent the epidemic were carried out based on the instructions titled »Instruction on cholera and how to protect from it«²⁰. With the help of other physicians, medical staff and citizens, Dr. Vipauc started intensive measures on thwarting the epidemic, first of all using the disinfecting substances that the municipality had preventively purchased as early as late 1885. They spent about 150 kg of phenic acid (carbolic acid) for disinfection of houses, streets, churches and public places; all public services were stopped, prisons dismissed, and guards were placed in front of the houses of infected persons. The livestock were massively killed and burnt. The excrement of the infected was placed in specially dug out holes. All disinfecting actions were organized by Dr. Karlo Vipauc with the assistance of municipal authorities and the governor Blažeković from Zadar. Local authorities required from the military headquarters a barracks on the right bank of the Neretva in Unka, what is now Mlinska Street. The request was refused at first, but upon intervention of governor for Dalmatia Blažeković, it was afterwards granted. The physicians thus got a wooden house at their disposal, which was turned into a cholera hospital²¹. It was a small timber house with the section with beds and with a kitchen for doctors and helping staff. From one newspaper article we learn the names of the doctors who took part in the fight against this epidemic. They were Dr. Lujo Mazzi Jr., the town physician in Metković, Dr. Hayeck, the military physician serving in Metković, Dr. Wodinsky, the regional doctor in Ljubuški, Dr. Sešun, reporter for the authorities in Zadar, Dr. Mazzi Sr., a physician in Opuzen, Dr. Karl Vipauc, the regional physician in Korčula and Dr. Gustav Nagy, the regional physician in Komin²¹.

The deceased were buried in an improvised graveyard not far from the hospital they had died in, on the property of Stipan Vuletić (son of late Nikola), with the surface of about 750 square meters²². It was situated less

than 2 km from the centre of Metković, on a badly chosen location by the embankment on the Neretva river which was also a border with Bosnia and Herzegovina (which is today the seat of the Communal Service offices of Metković). Among common people it was known as Greblje (Graveyard) (Figure 3). It was just holes hastily dug out in soil in which the bodies of the deceased were placed. The graves were marked with wooden poles, and the outer edge of the graveyard was marked with sheets (»mourning curtains«) as a sign of warning not to approach that place of grief²³. People who were burying the dead lived in a *pojata* (a field shed) owned by Mate Jelavić. According to the data from the death records, 27 persons were buried there.



Fig. 3. The current locality of the cholera victims graveyard.

Six months after the burial of the casualties of cholera, according to the Narodni list, on 24 March 1887 the flood started bringing dead bodies from their graves and their bodies floated along the Neretva, to the horror of the local inhabitants. A newspaper reporter N. L. wrote the following about it: »It was difficult for me to watch the wretched sight that was before my eyes«, asking whether it was God's punishment for the improper burial of the dead at the time of the epidemic²⁴. One of the newspaper correspondents compassionately wrote the following: »sympathy poured its mild plenty into this place of sorrow – only a monument was missing«. Later there were suggestions to have the bones of the cholera victims removed to the parish graveyard. »The bones should certainly be displaced, or we should be ready to spend a large sum of money in case we want to secure them where they are lying now«⁵. As far as we know today, this never took place. The graveyard was later levelled out and turned into arable land. Today there are no signs of that graveyard at all, and the facts of the epidemic are preserved only in historical sources²⁵.

Media influence – public media

The development of the cholera epidemic in the area of the lower Neretva basin was covered mainly by the Narodni list and Il Dalmata. The articles were written mostly in Croatian, only a small number of them in Italian.

These articles continually informed the readers about the beginning and the location of the epidemic, about the number of the infected, the cured and the dead, about the spreading of the epidemic to other areas, and about the state of the epidemic in other parts of the country. When the newspaper articles about the cholera topics are considered, it can be noted that all of it began with the report by Dr. Lujo Mazzi on the appearance of cholera. What ensued were the suspicions and disbelief about its appearance, but then there were numerous articles about the casualties, about the quarantine and the sanitary cordon, the failure to observe the anti-epidemic measures (navy colonel with wife left Metković unnoticed and went to Zadar)²⁵, and the disinfecting measures. Finally, there were articles about the end of the epidemic, including the praises to government officials (»the head did not spare himself from being exposed to the obvious danger: the effort and personal expenditure were nothing for him, the only important thing for him was to save the town. And he did save it! He deserves our thanks. We are not exaggerating if we say that he deserved our eternal gratefulness and sincere recognition«)²⁶, and their proclamation of honoured citizens. Physicians, on the other side, disappeared from newspaper articles, but also from the area in which they fought against the epidemic, without being particularly honoured for what they had done.

Besides publishing the figures concerning the development of the cholera, the newspapers became the main element in spurring the government for quicker interventions, and they also made an influence on the health education of the people. Among other things, they also reflect the opposition between the tradition and modernity (the younger and the older physicians, miasmists and contagionists), and these elements can be used in the reconstruction of the medical as well as the socio-political worldviews at the dawn of the bacteriological era. For example, the *Narodni list*²⁵ warns that the epidemics which were appearing in Metković should have been seriously considered, both from the administrative and the medical aspects. It is further quoted that a committee made up of a regional and a military physician met in Metković, and although the author does not doubt their competence, he states an opinion that the government should still send a cholera specialist, because it was not only about microscopic research, but a comprehensive approach to the whole area in which for years the so called *terzana di Metković*²⁷ was regularly appearing. In order to back up his statement, the author of the article describes a case of malaria which was cured by the intracutaneous dosage of quinine in the Split hospital, wondering whether quinine should be sent to Metković too, and thus put an end to its fevers²⁷. It is obvious that the journalist, just like a part of the contemporary physicians, was speaking from the standpoint of miasmatic nosologist reality which categorized diseases such as malaria and cholera as fevers, not seeing them as contagious in the sense of a microbiological cause but dependent on the locations at which they were. In this sense, the journalist warns and addresses the authorities to prohibit

the consumption of water in Metković from the river without previous boiling, making an appeal for hygiene, paying particular attention to the prohibition of throwing waste into the river, for in case this indeed was the Asian cholera the waterways (the rivers and the sea) could be fatal in its spreading. So, these were the typical standpoints and prejudices of the pre-bacteriological era in which it was still speculated about the causes of cholera. A somewhat shorter version of this text was printed also in Croatian in the same issue of this newspaper.

At first the newspapers took on a role of allaying the panic, speculating whether the first three cases really represented a sign of the beginning of an epidemic or whether it was just an ordinary appearance of the fierce Neretva fever²⁸. They marginalized the statements given by young and inexperienced physicians, attributing their diagnostics to the mere ambition and insisting on something the more experienced ones would for certain have qualified quite differently (for »the young and inexperienced physicians want to have it their way that this is cholera for sure«). Furthermore, asking the rhetorical question »How come cholera appeared in Metković?«, the author of the article points to the fact that the epidemics began on a steamship and that the crew of the ship did not get in touch with the local population. Finally he concludes that there is no need for panic, because the government sent experienced doctors to examine the genuine state of things. However, this journalistic allaying rhetoric would be significantly altered by the time cholera was spreading. By the rise in the number of the infected and the dead, the discourse of the journalists gradually went from the one which tried to soothe the population and which was showing suspicions about young doctors, through the tone of appealing to the government and local authorities, to the more affirmative one concerning the doctors who first signalled and confirmed the beginning of the epidemic. Finally, no matter how hard the writers of newspaper articles strove to be objective, their texts rather openly expresses opportunism, anger and/or criticism. A characteristic text in this sense is a somewhat rebellious comment of one of the journalists: »The situation is slowly abating and the government still does not know whether it was cholera or some other disease. This morning the health administrator went there, and we ask why the health counsellor on behalf of the headquarters did not go there, although it was his duty. Strange, concludes the author, ten days later we still don't know which disease it is? The government itself is not clear about it. Has anything similar ever happened anywhere else in the world?«³⁰.

The newspaper texts offer two ways of dealing with the topic of the cholera epidemic. On one side, the physicians sent straight to the midst of the epidemic kept repeating their diagnosis asking for support and help, while on the other the suspicious bureaucratic organs and the rest of the doctors denied cholera, sticking to the deeply rooted concept of the unhealthy environment of the swampy area in which all kinds of fevers had been appearing and spreading. This is why Dr. Vipauc and Dr.

Mazzi invited them through the newspapers to come to the field and face the disease there: »to leave aside journalistic lectures with which they confound the people and aggravate the situation for us who are working with the health benefit in mind. This is required by the danger which threatens the whole region. Let them come to the battlefield and then they themselves will see that they were constantly just fiddling around.«³⁰.

Throughout history this disease gradually transformed into a metaphor of threatening danger, an enemy that was invading the body. This old metaphor survived and remained alive particularly in the sphere of public health education, where the disease was seen as a social category, and the attempts to decrease the death rate was called a battle or a war. The metaphoric quality the journalists used in the quoted newspapers when writing about cholera points clearly to this tendency. In longer texts the concrete name of the disease is rarely used, but instead they labelled it as »a harsh guest, a fierce enemy, and alike«.

From the anthropological standpoint, this material enables the perception of different reactions to the danger caused by cholera: the emotional disorder that ensues (panic, conflicts within various structures), a confusion which is rooted in deep ambiguity: religious/ritual rites (the burial of the dead) became socio-political events (interventions of public health organs and the need to improve the graveyard), which got in touch the sacred and the mundane and caused a discord between the cultural frame of meaning and the pattern of social interaction. In the context of analysis and experience of the epidemic in the Neretva region, the newspaper articles thus represent a sensitive register of the change of forms of behaviour, the way of speaking, the mechanisms of reactions and the adjustment to the epidemic which was spreading on one side, and opposition to it on the other. This very material points to the details, the individual and the collective, at times of danger, and the elements of historical events that have been missed out in other sources. They show how the original sources about past can be of use for collective memory, or represent a medium for discussion about the multilayered nature of social mechanisms at the time of epidemics, which, however, does not make them lose their convincingness even in the present day.

Discussion

The cholera epidemic that broke out in the Neretva valley in 1886 was part of the fifth pandemic wave that was spreading throughout Europe. In this paper we have showed its appearance and spreading, based on the sources from the parochial death records and newspaper articles. Although these sources do not correspond in every segment and figure, combined they give a good portrayal of the course of the epidemic, the anti-epidemic strategy of the local and state authorities and the then ideas about the prevention measures and activities for the health protection of the population.

It remains vague, however, how the epidemic started i.e. where the first patient got infected: did he come from the outback or did cholera arrive via seaways. There are two possibilities. Namely, based on the reports of a Narodni list correspondent, when the steamship *Cavalere de Chlumecky* sailed out of the Metković port on its regular route to Ston, there had already been three infected in the town. At that time Metković was a quite significant Austro-Hungarian port, connected with other Adriatic ports, so the disease could have come from a ship. However, the possibility of it coming by land should also be kept in mind – at the time when the epidemic started there were about 600 workers in Metković who had come from the neighbouring places in order to work on the regulation of the Neretva riverbed. It is quite realistic that the disease could have come from the neighbouring Bosnia and Herzegovina – it is known that the Ottoman occupational authorities deliberately avoided taking health measures for the benefit of the occupied, mostly Christian population³¹.

When, due to the spreading of epidemics in the 19th century, it became clear that this disease was an international problem, international conferences about cholera were started to be convened. The first of the kind was held in Paris in 1851 with the aim of establishing unique rules for quarantines and lazaret houses in the Mediterranean area, so the convention on general provisions about quarantine was passed³². At the Istanbul conference held in 1866 the abolishment of sanitary cordons was suggested, while at the Vienna conference in 1874 the abolishment of quarantine was proposed, but the principle of cholera hospital was retained. Despite the abovementioned, from the analysed material it is clear that the first concrete anti-epidemic measure that was taken in this area was quarantine. Concerning the long tradition of the use of quarantine measures it was obviously the simplest thing for the local authorities to do, and so the steamship on which the infected persons appeared was immediately sent to isolation. The sanitary cordon was organized in the same manner, and it delineated the infected from the non-infected areas. All land traffic was also blocked and all those who found themselves in Metković were disabled to resume their journeys. Numerous conferences about cholera showed that the sanitary cordon was not the best solution for the fight against cholera^{32,33}. One of the main reasons lied in the impossibility of its practical application, which proved right on this occasion as well in the area of the lower Neretva basin. Besides, cordon was not the internationally recognized measure at that time, but was applied only if certain countries considered it necessary, as was the case with the region of the Neretva valley.

Although we are speaking about the period of the beginning of the bacteriological era and the period when Koch's discovery of the cause of cholera had already been published (1884), the medical community was still divided between the contagionists and the miasmatisms. This was probably one of the reasons for the conflict among doctors concerning the appearance of cholera in

the region in question. In the spirit of the older miasmatic concept, the idea of cholera, its character and cause were contained in poisonous vapours (miasma) that caused it, as well as in the fact that cholera was not an infective disease. In line with such knowledge, the prevention was very wide-ranging and mainly consisted of the usual disinfecting means prescribed by the medical doctrine for the disinfection in case of other diseases, too. The instructions and rules were upgraded and altered, particularly with the development of knowledge about the etiology of the disease. These instructions mostly contained information about the disinfecting means, the way of abduction and the burial of those who died of the disease. The main elements of the instructions can also be found in the measures taken in the cholera hospital in Metković, although they were rather a necessary improvisation than the precisely applied plan of the prescribed measures. This can also be seen in the inadequate choice for the burial site, which would later on result in the flood taking away the bodies from their place of burial.

The example of the fight against the cholera epidemic in Metković shows an emphasized unpreparedness of the bureaucratic and inefficient governing organs, whose activities were mainly directed to the formal meeting of preventive measures and an easy handing over of individual initiatives to the physicians. This is also obvious from the criticism of Dr. Lujo Mazzi who as early as 29 August, ten days before the first cases of the disease, sent a telegram to the Narodni list in which, complaining about the inability of the authorities, he said: »We doctors have been working and the authorities have been snoozing. It seems it is high time they woke up.«³⁴. His criticism was, however, directed also to those physicians who did not accept the possibility of the appearance of cholera in Dalmatia, and who thus delayed the recognition of the gravity of the situation. The overall situation

contributed to panic and fear of the population, which is noticeable in the fact that the workers who had worked on the embankment ran away from their work posts before the fear of the epidemic, and thus contributed to its spreading. (»We can hear that almost all workers fled the Neretva region. There had been about 600 of them. Be warned by this, municipal authorities!«)³⁵.

Conclusion

From all the aforesaid, it can be concluded that the overall anti-epidemic protection of this region, with the exception of disinfecting means, in reality could not significantly have affected the course or the stopping of the epidemic. The contemporary principles of prevention from cholera showed that the sanitary-police measures cannot thwart coming of the disease to any country, and it was exactly this that was the main anti-epidemic strategy in the protection of this region. It is also stated that the focus of the anti-epidemic measures should be on early detection, on disabling its spreading and on proper early treatment, in order to avoid the lethal outcome. In the Metković region, due to the ignorance about the etiology and therapy, as well as the poor and belated coordination of all the responsible organs, the early detection and recognition, and the anti-epidemic measures taken went fundamentally wrong, and it seems that it did not have any serious influence on thwarting the epidemic.

Acknowledgements

This paper is a result of the research project conducted by the Croatian Medical Identity and its European context (No 101-1012555-2553), supported by the Ministry of Science, Education and Sports of the Republic of Croatia

REFERENCES

1. BELICZA B, Zagreb u borbi protiv kolere. I simpozij o historiji mikrobiologije i imunologije u Hrvatskoj do 1923. godine. [In Croat]. (JAZU, Zagreb, 1973) 17. — 2. Naputak o načinu kojim se je pučanstvu vladati kad prieti ili bukne kratelj. [In Croat]. (Vitaliani & Janković, Zadar, 1884). — 3. FERI R, Liječ Vjes, 79 (1957) 465. — 4. JURIĆ I, The economic and merchant development of the harbour of Metković 1850-1918. [In Croat]. (Matica hrvatska, Ploče 2000). — 5. Narodni list, 27 (1887). [In Croat]. — 6. LANZA F, Povijesno-statistički-medicinski ogled o antičkom gradu Naroni i o današnjem stanju njegova područja. [In Ital]. (Pei tipi di Jacopo Marsigli, Bologna, 1842). — 7. LANZA F, Relazione nosografica statistica sull'epidemia colerosa che invase la Dalmazia nel 1836. [In Ital]. (M. Wies, Trieste, 1838). — 8. CARINEO A, Il Colera – Morbus, [In Ital]. (Split, 1856). — 9. TRIGARI V, Memoria sopra i primi casi di Cholera – Morbus, cholera in generale dell' anno detto. [In Ital]. (Tipografia M.V. Piperata e figlio, Split, 1851). — 10. WOKAUNN M, JURIĆ I, VRBICA Ž, Croat Med J, 47 (2006) 759. — 11. The register of the Roman Catholic Paris of Metkovic – The book of deceased. [In Croat]., vol VI (1880–1901) 66. — 12. Narodni list, (1886). [In Croat]. — 13. Glas Hercegovca, 41(1886). [In

- Croat]. — 14. Narodni list, 70 (1886). [In Croat]. — 15. SIROVICA S, The last protomedic of Dalmatia during AH Monarchy Dr. Karl Vipauc [In Croat]. (Šibenik, Štampa, 1990). — 16. Narodni list, 82 (1886). [In Croat]. — 17. Il Nazionale, 78 (1867). [In Ital]. — 18. VIDOVIĆ M, Rev. Radovan Jerković – life and work. [In Croat]. (Matica Hrvatska, Metković, 2000). — 19. Narodni list, (1886). [In Croat]. — 20. Objavitelj Dalmatinski, 68 (1886). [In Croat]. — 21. Narodni list, (1886). [In Croat]. — 22. VIDOVIĆ M, Don Radovan Jerković život i djelo (Metković, 2000.) 322. — 23. Narodni list, 27 (1887). [In Croat]. — 24. Narodni list, 27 (1887). [In Croat]. — 25. Narodni list, 70 (1886). [In Croat]. — 26. Narodni list, 80 (1886). [In Croat]. — 27. Narodni list, 66 (1886). [In Croat]. — 28. Narodni list, 68 (1886). [In Croat]. — 29. Narodni list, 70 (1886). [In Croat]. — 30. Narodni list, 77 (1886). [In Croat]. — 31. MASIC I, Med Arh, 45 (1991) 127. — 32. BENČIĆ Z, Sanitarni kordon i kolera. Eds: Vodopija I, Sanitarni kordon nekad i danas. [In Croat]. (ZLH i ZZZGZ, Zagreb, 1978) 155. — 33. CVJETANOVIĆ B, Strategija i »Cordon Sanitaire« u borbi protiv kolere. Eds: Vodopija I, Sanitarni kordon nekad i danas. [In Croat]. (ZLH i ZZZGZ, Zagreb, 1978) 153. — 34. Narodni list, 70 (1886). [In Croat]. — 35. Narodni list, 70 (1886). [In Croat].

S. Fatović – Ferenčić

*Croatian Academy of Sciences and Arts, Department for the History of Medicine and Philosophy of Sciences,
Division for the History of Medicine, Gundulićeva 24, 10 000 Zagreb, Croatia
e-mail: stella@hazu.hr*

BOŽJA KAZNA ILI LOŠA STRATEGIJA: PROTUEPIDEMIJSKE MJERE U DONJEM PONERETLJU U DOBA KOLERE 1886. GODINE

S A Ž E T A K

Epidemija kolere koja je zahvatila područje Neretvanske doline 1886. godine bila je dio petog pandemijskog vala koji se širio Europom. U radu smo, na temelju matičnih knjiga umrlih i onodobnih novinskih članaka, prikazali njenu pojavnost i tijek. Novinski članci su, u kontekstu raščlambe i doživljaja epidemije kolere na području donje Neretve, prepoznati kao osjetljiv registar mijene oblika ponašanja, načina govora, mehanizama reakcije i prilagodbe na epidemiju koja se širi, ali i otpora spram nje. Upravo ovaj materijal ukazao je na odnos individualnog i kolektivnog u trenucima opasnosti, te na pojedinosti povijesnih događaja koji su izostavljeni u drugim izvorima. Identificirana su dva moguća puta ulaska kolere na područje Donjeg Poneretlja: morski te kopneni iz susjedne Bosne i Hercegovine. Kao protuepidemijske mjere primijenjene su karantenske mjere, organiziran je sanitarni kordon, provedena raskužba terena te podizanje kolera bolnice u Metkoviću. Unatoč svemu istaknuta je neučinkovitost upravnog aparata, čije su akcije bile uglavnom usmjerene formalnom zadovoljavanju protuepidemijskih mjera te lakom prepuštanju individualne inicijative liječnicima. Analiza strategija vezanih uz okolnosti provođenja protuepidemijskih mjera u prošlosti mogu poslužiti u upoznavanju slojevitosti društvenih mehanizama u vrijeme epidemija, čime ne gube na svojoj uvjerenosti i u suvremenosti.