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The Physicians and Surgeons of Koper from the 14th to the 17th Century

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A B S T R A C T

Koper stands out among Istrian towns of the nordeastern Adriatic coast for its highly advanced medicine. Communal service developed between the 13th and 15th century. Beside the hospital, almshouse and a quarantine, the city also boasted highly trained physicians, surgeons and barbers. Trade, crafts and navigation prospered and numerous town intellectuals established an academy whose most active members were medical doctors. The aim of this article is to give a chronological presentation of physicians related to Koper by their birth or work and of other scientists who contributed to the development of local medicine. These includes (about forty names) S. Santorio, Ser Benvenuto, P. P. Vergerio, G. Nuzio, F. Nuzio, P. de Castaldi, I. de Albertis, L. Zarotti, B. Petronio, I. Bratti, Z. Zarotti, A.Valdera, G. Vergerio and C. Zarotti of whom some are well known. The author wishes to systematisize the bibliography, fill the gaps and show ways for further research in the archives and museums of Istria, Triest, Venice and Vienna.

Key words: *history of medicine, 14th to 17th century, physicians, surgeons, Iustinopolis-Koper*

Introduction

This contribution originates from a widely extended science research work on archival material. It brings new cognitions from the field of medicine and health workers in the area of Koper from antiquity to 17th century inclusive. The 18th century has been already covered by research in greater detail. Other towns on the Slovenian coast (Slovensko Primorje/the Slovenian Littoral) have not been included – an independent research would be necessary for each of them. Koper deserves particular attention among Istrian towns of that period because of its central position in economic, cultural and political development.

Materials and Methods

The historical sources about Koper and Istria consist of numerous fragmentary records on health workers who worked and left traces in their hometown as well as in other cultural centres of Europe. With the exception of Santorio Santorio, only few health workers are mentioned in the records of and papers on Slovenian medical history. We gathered numerous materials on these and organized them logically, chronologically and systematically into a whole, accumulated from local archives, polyhistoric research work or from the context of wide-scale discussions on medical history in the Slovenian Littoral Region, in Istra (Istria) and neighboring places. The history of health care and medicine in Koper has not been approached from this point of view to date. The data which have been preserved about health institutions from that time are scarce, existing mostly in written records of art and monumental character, and in analyses or studies on architecture and town chronology[1]. Since the prehistoric times, Koper has been interplay of a variety of cultures and has remained so to date, rich with its ethnic mix of Slovenian, Croatian and Italian population and offering a possibility for an in-depth intercultural dialogue.

The development of medical science in Koper is subject to our inferences from the analyses available on the development of medicine in Istria and the adjacent areas. Fragmentary data on diseases and epidemics are also preserved in secondary sources – the comprehensive papers by earlier historians: Tomasini, Schiavuzzi and Stancovich, and contemporary historians such as Glesinger, Fatti, Grmek, Belicza, Kramar and others.

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Methodologically, this research is interdisciplinary and uses the scientific apparatus of the humanities and natural sciences. The original documents and works of earlier polyhistors are approached to from the present-day medical viewpoint, considering those works being written with a limited medical knowledge. In order to bridge several gaps of earlier historical developments, comparative methods of related disciplines have been applied. Data from different sources are frequently repeated and sometimes become even contradictory. It should be noted that the greater part of the analysed period pertains to the late Middle Ages and the beginning of modern times, the general historical details of which are often not known. We also come across incorrect interpretations of certain thoughts in the sources which cover up to the end of 19th century. These sources can open new ways to an in-depth research on medicine also in other towns of Slovenian Littoral.

Results

Development of health-related ideas and practices in Koper until the end of the 17th century

Koper is an ancient city with a well preserved old structure situated at the end of the peninsula which is hardly recognizable as such. Until the 17th century, Koper had been an island, since then it is connected to land. The immediate hinterland of Koper was populated already in prehistoric times. Historians reported about the Illyrian tribes named Histri who had come down to the seaside and brought a highly developed culture called 'Kaštelir' culture (kaštel is an ancient fort and building site), who represented a dangerous threat to Roman trading on the sea and their estates located at the western Adriatic coast. These tribes prevented the Romans from invading Istria. Nautical routes along the Istrian coast were lively already in the 1st millennium B.C.

The first record on the Aegida settlement (Koper area) was written by the Roman historian Pliny (23–79),

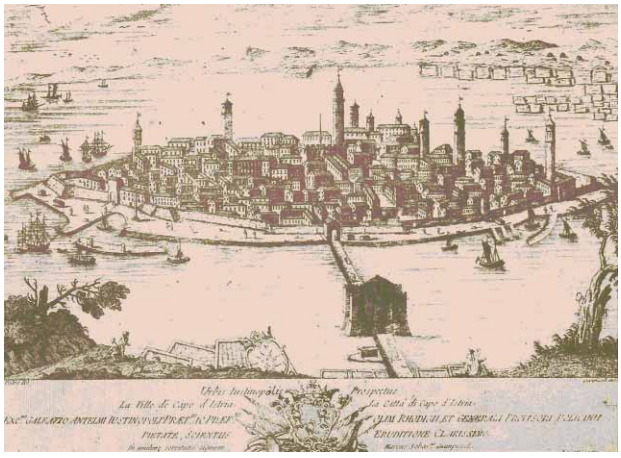

Fig. 1. Copperplate of Koper panorama from 18th Century (Regional Archive of Koper).

in the times of intense romanization of Istria, at first named Capris, then Caprea Insula, Insula Capritana (goat island)[2]. Supposedly, it was founded in the 2nd century B.C. when the Romans occupied Istria and ruled there for six centuries and a half. This is proved by the remains of buildings (mosaics in the Santorio Street), money and other finds, and the peninsula's shape in the form of a shield. After short predomination of Eastern Goths, Koper had to surrender to the power of Byzantium and became an important strategic point of the Byzantine Empire, as a cultural and trading centre, and received the name Iustinopolis in the honour of the Emperor Justinian II. The remnant of the ancient name is reflected in today's suburbs of Koper, Žusterna. On the one hand, the city shared the same fate as the Istrian peninsula, which was under the domination of Lombards and Franks, while the hinterland was open to the Slavs on the other hand. The Rižana Assembly Charter (Placitum in territorio Caprense) is one of the most precious and important documents that witness the arrival and settlement of Slavs in Istria[3]. During the short period of the domination of the patriarchs of Aquileia, the city walls were built and that has basically preserved the city's appearance until the 19th century, the remains of which are still visible today (Figure 1).

In 1279, Koper was annexed to the City of Venice and remained under Venice until 1797, when the rule was taken over by the Hapsburgs[3]. In this turbulent period marked with the struggle for existence, independence and establishment, we can find many characters that left traces in science, art and medicine. The year 1478 saw the establishment of the first academy, followed by a new one in 1553. The best known was the Accademia Palladiana, in which the physicians were the most active, and it operated until 1646 when it grew into the Accademia dei Risorti thanks to the new flowering of the culture. The latter intended to unite all the intellectual forces of Istria[4].

We can speak about medical science in Koper only after the 6th century, i.e. when the Slavs brought their own indigenous medical science to this area. During the centuries (7th to 12th century), the newcomers were gradually assimilated with the Roman-Illyrian natives, which also reflected in the medical practice. In addition, the bulk of medical practices absorbed the experience and elements of the monastic-Latin medicine and was gradually enriched by the elements of the Byzantine and Arabian medicine[5]. In the period between 13th and 15th century, the city had a well developed utility and communal structure. Public health care was at an enviably high level, including the general hygiene, drinking water supply and food. The city applied a variety of measures which became laws later on, to fight against epidemics of the plague and malaria, as well as against prostitution and alcoholism. The burials of the deceased were regulated precisely, too. The overpopulated city behind the walls (up to 8,000 residents) was often ravaged by wars, the plague and malaria, periods of poverty and starvation. The first shelter – Hospicius was opened in the

monastery, later called the »Hospital« (in 1245 of St. Nazarius, in 1359 of St. Mark). Before the first educated surgeons emerged, minor operations (healing of wounds, extraction of teeth, bleeding, etc.) were performed by local barbers – the barbieri. These were the predecessors of surgeons. From the 14th century the city employed one or two paid physicists – called the *medicus*. The first pharmacies were opened, the first prophylactic measures began to be applied and the rules of quarantine were introduced. The city was not only devastated by the plague and malaria, but also by unknown epidemics that were called as peste – the plague. Those diseases included, for sure, the intestinal diseases (cholera, typhus, dysentery). The plague struck most heavily in 1553 and 1554, when the number or residents shrunk from 8,000 to 2,300. Typically, the opinion prevailed that miasmas were the origin and cause of epidemics, while the plague was allegedly an outcome of the polluted air from the swamps that enclosed a part of the city[7]. The advocate of this theory was medical doctor Prospero Petronio (1608–1688) from Koper, who dared to oppose even to Professor Vittorio Trincavelli from Padua (Venice, 1496–1568), who suppressed this epidemics[8]. The hygienic conditions, health care and control in the city were extremely poor. The only municipal doctor Leonardo Zarotto (1515–1596) fled to Venice in fear of catching the plague, with the permission of the authorities since the contract did not bind him to treat the sick residents. He asserted not to be able of providing such treatment – »per non esser medico di giandussa«[9]. The epidemics left a horrible devastation in the city: citizens were helpless; therefore the Senate of Venice adopted numerous measures and established several religious foundations to mitigate the dreadful situation of the residents in Koper. Not only the plague, also the malaria struck the city of Koper and Istria; after the Black Death was eradicated in the 17th century, malaria was taking lives for three hundred years more. Of all contagious diseases, malaria was the hardest nut to crack for all epidemiologists. Its history in Istria is best explored thanks to the discussions written by Bernard Schiavuzzi (1849–1929), who also fought for eradication thereof from Istria[9].

Medical doctors and surgeons in Koper from the 14th to 17th century

The laws regulating the medicine and public health played and important role in the development of medical science. They created the conditions in which medical practice eventually became lawful, the vocation and medical duty developed in a profession, and the medical practice within the system of public services was institutionalized. Since the 13th century we can trace the regulations: on health workers' duties to the public, the courts and public health care system, on the role of preventive care and protection, development of civil and maritime health care system in Istria, on the sanitary-hygienic supervision and on anti-epidemic measures. No medical schools or medical professional associations were established in Istria, however, the municipal statutes of the Istrian towns, municipalities and feuds did comprise the rules and standards regulating the terms and conditions for lawful and professional pursuit of medical practice.

With the opening of West-European Faculties of Medicine (scholastic medical science) the differentiation of medical vocations was done. Surgeons, dispensing chemists and midwives had the status of non-academic vocations (they were categorized to the craftsmen's social class), while the physicians (doctors) had the status of both, academic profession and title. Academically educated doctors were actually philosophers and learned men, because the medical science of the Middle Ages and Renaissance period did not strictly differ from philosophy, logics and astronomy. Accordingly, already in the 12th century they were awarded the title Physicus and the academic title Doctor or Master and were required to complete the studies of philosophy and natural sciences as well. Therefore, the medicine was separated and distinguished from surgery, which was ranked lower than the medical science and was performed by surgeons (cerugico, cerusico, chirurgus, barberius, barbier) who earned respect and honour in their lifetime despite their lower social rank[12].

The regulations in the preserved statutes and acts were similar to those of Venice. The institute of licence was enacted in almost all parts, where diploma of medical sciences was the first condition required. Sometimes the authorities were not satisfied with the doctor's diploma but rather tested the doctors and surgeons with a special test to licence for medical practice. The Great Municipal Council of Koper decided on 8th November 1452 that all doctors and surgeons had to sit for an examination in front of the Municipal Council every year; otherwise they lose their right to pursue their medical practice or profession[9]. In most of the Istrian statutes, the Doctor's duties were taken from the work »Capitulare medicorum«, in the form as a vow, which was published in 1258 by the Great Council of Venice. »The Doctor swears an oath: not to treat any patient until he confesses all of his sins; to treat all patients and wounded persons according to regulations and discreetness, to give them advice and offer help in sickness, and not to prolong their illness with any fraud or deception. He will not give or sell any toxins to patients, and he will not liaise with the dispensing chemist and expect to receive a part of his profit from the sale of medicines to his patients«[9].

In spite of municipal concern for ongoing health care, the doctors were leaving their positions due to insufficient salaries, or escaped from contagious diseases, or died. The authorities were also rigorous about the origin of the doctors. They were only eligible to become doctors if born in a marriage, in Koper or its adjacent surroundings and of a noble descent with the tradition going back at least 120 years[7,9]. The municipality was also required to employ a surgeon – a barber. Surgeons received their education at surgical courses in Padua and Venice, while barbers learned from senior barbers. Both of them had to be approved by the Medical Council of Venice (Consiglio dei medici) to be able to pursue their profession. Their

duties were strictly defined, too. According to the Statutes of Koper from the year 1400, they were obliged to perform minor surgical operations (extracting the teeth, cleaning the wounds, etc.), administer first aid, help the wounded and injured persons especially for the sake of denouncement and punishment of culprits, to perform post mortem examinations and collaborate in the torturing procedures at the Court[13].

The sovereigns and feudal lords had their own personal physicians; citizens were in the care of municipal doctors, while peasants and beggars were mainly left over to fortune-tellers and primitive medicine, although municipal doctors were obliged to treat them free of charge[3]. Below is a list of profiles of physicians and surgeons who were working in Koper or originating from Koper through the 17th century. They are categorized according to the years of service, irrespective of their role, position and contribution to medicine.

14th century

The preserved documents reveal that the Municipal Magistrate of Koper had one to two physicists, medical doctors on the payroll. Almost no other data are available beyond the names of individuals. The records mention: Ser Benvenuto (1310), Marco de Fermo (1339), Ser Pietro Cleregino, who was at work around the year 1357 in Koper. Manfredo da Sacile held a position in the city at the end of the 14th century; however, he left in 1401 because of inadequate salary. At the beginning of the 15th century, the humanist Pietro Paolo Vergerio (Koper, 1370 – Budapest, 1444) worked in Koper. He wrote numerous works, discussions and poems and associated with the most prominent learned men of his time. His most noteworthy discussion is »De ingennis moribus et liberalibus studiis adulescentiae«, which had a bearing on the development of schools in the field of humanities and pointed to the role of the study of literature, moral philosophy, natural sciences, physical education and martial arts in a free education system. The work is written in the form of letters and contains instructions on physical education for the youth. It stands for the beginning of the mental hygiene development[14].

Fig. 2. Graphics of Girolamo Vergerio – Hieronimus Iustinopolitanus Phil. et Med. Doct. (Koper, 1622–1678) who worked as physician in Koper and was an excellent writer (Regional Archive of Koper).

Surgeons – the barbieri – performed their work parallel with the doctors. The first barber mentioned is Andrea Bonacato Degli Albavisani, followed by Lodovico da Fermo (1376) and Maestro Bonaventura (1388). On the brink of the 15th century, Bonajunta was the surgeon and prior of the S. Nazario Hospital.

15th century

Panfilo de Castaldi – Pamphillio de Gastaldis Physico (Eximio artium et medicine doctore domino magistro Pamphillio de Gastaldis) (Feltre, 1398 – Zadar, 1487) – started working in Koper in 1461 as a qualified doctor, and in addition to his medical profession, he experimented in the St. Ann's Monastery with printing using mobile letters: he was a forerunner of Guttenberg and proclaimed as the pioneer of printing skills[16]. He even abandoned the medical practice and departed to Venice together with another physician from Koper Antonio Pianella, and then to Milan. Finally, Pianella was awarded the privilege for printing because Castaldi as a nobleman was not allowed to pursue manual work, so he was not eligible for being awarded the privilege. He left Milan very disappointed and spent his last year working as a doctor in Zadar, Dalmatia. Giovanni (also Ivan) de Albertis (Giustinapolitano) succeeded him as the municipal physicist (Koper, 1410–1488)[6]. He studied medicine in Padua. In 1471 he became the municipal physicist in Koper and a doctor of medical science later on. He retired in 1480, when he was seventy. He has a place in the world literature thanks to the erudition of his discussion that is greatly distinguished from other works released at that time. His work »De praeservatione corporum a pestilentiae et de causis pestilentiae et modis ejus« in the manuscript, dated 1450, is kept in the National Library in Vienna (Figure 2). This work ranks to the most prominent treatises on the plague from that era.

By the end of the 15th century, there were other doctors working in Koper, as follows: Giuseppe Verona, Giovanni Paolo Zarotto and Girolamo Gavardo, Luigi Carrerio (Koper, 1498). Surgeons – barbers, who descended from a reputable family Nuzio (or Muzio), were noteworthy in that century, too. The first and most prominent representative was Giovanni Nuzio (born in Videm/Udine), who accomplished his skills as a barber with such distinction that he was affiliated as an honourable member to the nobility of Koper in 1442, upon proposal by the Venetian Republic. Only the barbers were allowed to per-

form minor surgical operations at that time. Numerous qualified surgeons developed from barbers. Giovanni Nuzio Fu Ambrogio (1445) of Koper was forthwith succeeded by his son Filippo Nuzio (1450). Another surgeon, Bernardino was mentioned in Koper in 1498.

16th century

In the 16th century, a number of brilliant physicians changed their position in Koper. The first was Giovanni Romano (1531), followed by Giovanni Antonio Castelli (1535), who dedicated his 35 years to Koper.

Leonardo Zarotti (Koper, 1515 – Venice, 1596) worked for many years in his home town. He was a most appreciated, proficient, famous and rich doctor in Venice. In 1581 he bought the Holy Trinity church in Hrastovlje (presently under the protection of the world's cultural heritage), which is evidenced by the inscription on the church[17] (Figure 3). In the years 1553–1554, when the number of citizens in Koper was heavily struck, the municipal health care was very poor. The Municipal doctor – physicist Leonardo Zarotti fled with his family to Venice from the fear of the Black Death. Some physicians had a clause in their contract with the Municipal Administration, according to which they were under no obligation to heal the infected patients. So he was able to avoid this duty. After the epidemic he returned to Koper in 1558[7].

The 16th century saw three members of the distinguished family Zarotti working along with each other: Leonardo, his son Ottaviano and Zarotto Zarotti[18]. Ottaviano Zarotti, son to Leonardo, was born in Koper and left for Padua to become a professor of medicine. The year 1548 has been mentioned. He was a poet, too.

Santorio Santorio (Koper, 1561–Venice, 1636) is the central personality among the physicians of that time. With his work he has become immortal in the world's history of medicine. The literature on him is numerous and almost non-transparent. Here are only the basic data on his work and life. According to some sources, he could be of Slovenian origin, named Svetina. Santorio attended school in Koper and Venice; as a child he mastered the Latin and Greek language, and was acquainted with the basics of philosophy and mathematics[19]. In 1575 he went to study medicine and philosophy to Padua. As early as at the age of seventeen, the university took pride in him, giving him credit for his thorough knowledge and erudition; he was awarded his PhD degree in 1582. He continued his medical practice in Padua, where he started with his first 'static' research. The period from 1587 to 1599 has not been fully studied yet. According to some records, he lived and worked in Krakow, Poland, as the personal doctor of the Polish king Maximillian. However, sources of the later period reveal that he worked with the famous Zrinski family in Croatia; from there he often travelled to Venice and remained there since 1599 to his death. For this reason, Santorio is also well known among Croats; the scientific library in Pula and the University Library in Zagreb keep some of his works. He influenced also well known doctor of Croatian origin Armeno Baglivi[20]. After his return to Venice he was not employed, this data is supported by the recommendation issued in 1599 by the Koper physician Leonardo Zarotti to the Municipal magistrate, advising them to employ the brilliant Venetian doctor for the salary of two hundred ducats, but he didnžt get the job[21]. But as a regular member of the Accademia Palladiana in Koper he was involved in it and lectured there (Figure 4).

Fig. 3. Portal of the Hrastovlje Church where the famous Frescoes of the Dance of Death are preserved. At the entrance, the inscription from the year 1581 on the high wall of the fortified place is still clearly visible; in that year the Hrastovlje stronghold was purchased by Leander Zarotus (L. Zarotti), a doctor of arts and medicine, whose name is written (Photo Lejla Peternelj Uran).

Fig. 4. Sculpture of Santorius Santorius Justinopolitanus (1561–1636) from the Main Square in Koper (Photo Lejla Peternelj Uran).

On 6 October 1611 Santorio was nominated for the first full Professor of theoretical medicine at the Arch--Lyceum in Padua. He gathered the findings of his thirty--year research in his masterpiece »De medicina statica« (1614). It is in the form of a collection of aphorisms on medicine. By the 19th century, the booklet was fifty times reprinted and translated into five world languages in Westrn Europe. At that time, he designed and produced numerous instruments and devices, and exhibited them in his house. He was a decided opponent to astrology and pseudo-science, so he got numerous opponents and retired from the social life despite his glory. He devoted himself to experimenting, research and writing. His last will reveals that he earned his wealth by working as a doctor and professor of medicine. Full quotation of his last will was provided by A. Castiglioni[18]. A copy of his testament is in the Municipal Archive of Koper, identical to the original which is kept in the Archive of Venice.

In his reflections and experimental part, Santorio opted for the iatrophysical or iatromechanical medicine, which explains all the vital processes on the basis of physical phenomena. He was an extremely good writer and inventive clinicist. One of his distinctive features was the affirmation of the quantitatively experimental methods in physiology and pathology. So he has deserved an outstanding place in the history of both, the science and medicine[22]. Santorio's »De medicina statica« originates from the school of medicine of Hippocrates and Galen, and from the quantitative statics of the Renaissance. In that work he explained his concept on the substance exchange by the precision scales of his own design used to measure all the changes in body weight in normal and pathologic conditions. He was the first to interpret the invisible perspiration – perspiratio insensibilis, which is relevant for maintaining the normal condition of the organism. According to him, the difficulties in the invisible perspiration are the cause for numerous diseases. He was the first to introduce the notion 'disease quantity' and the real originator of individual biometrics. He devoted himself to designing and construction of numerous instruments: a simple pulsimeter, humidistat, special scales to measure the changes in body weight, thermometer, and several others. Santorio introduced the thermometer into physiology and pathology and measured the temperature of a healthy and sick man – although the thermometer has been in clinical use only since the second half of the 19th century. Furthermore, he was the initiator of climatological measurements and highlighted the role of climate (winds, air temperature and humidity) for health. In his work »Methodi vitandorum errorum omnium« he explained how to distinguish the correct or incorrect pulse using the pulsimeter so called pulsilogium. The oldest picture of the puncture device (troacar) that he used in tracheotomy, abdominal and thoracic paracentesis belongs to him. He was long hiding his instrument and the puncturing technique from predators for ideas and inventions. There are plenty of his inventions which reveal his rational approach, originality, inventiveness and humanity.

In the middle of the 16th century, another physician worked in Koper – Ivan Bratti, who was better known as an alchemist and writer of interesting alchemistic treatises with elements of medical thinking. His life and work are not fully researched yet and raise curiosity in medical historians[10,23]. Among the physicians of Koper are further mentioned: Helio da Capua (1546) and Alvise Crivelo, who died in 1548. Eight more physicians worked in Koper towards the end of the 16th century: Giovanni Secondi from Milje/Muggia, who died in Koper in 1596, and Paolo Piazzola from Padua. In 1565: Giovanni Paolo Monchio from Otranto and Simone Pelicerio from Saravallo. They were followed by Giuseppe Ovettario (1576), Michele Pellegrini (1587) from Šibenik, Pietro Antonio Giusti (1589) from Venice and Alvise Bidelli (1596)[9]. In the years from 1596 to 1613 the municipal authorities of Koper were not able to employ any physician due to poor salary.

The world history of medicine also includes physicians who were born in Koper and worked in other towns: Bartolomeo Petronio was nominated as the third Professor of theoretical medicine in Padua on 17. 5. 1527, his salary was twenty florins[9,24]. Zarotti Zarotto (Koper, 1590) worked in Koper at the same time as Leonardo and Ottaviano Zarotti and became the personal physician of the Cardinal Radzivil in Poland (today located in Belarus), after that he was Professor at the Faculty of medicine in Padua[9]. Marcantonio Valdera died very young in 1604. In his life, though very short, he was a distinguished physician, philosopher and poet. He was a good friend of Santorio Santorio[19], who after Valdera's death published his translation of »Le epistole eroiche di Ovidio«.

The sources on the 16th century reveal no surgeon born or working in Koper.

17th century

In 1613, Marco Aurelio Lipelli is mentioned among the physicians of Koper, who served in Pula and Vodnjan before coming to Koper, followed by Alvise Del Senno, a native of Koper. In 1631, during the epidemic of plague in Koper, Medica Otonella was assigned from Venice to Koper and died in her humane mission in the same year. Three more physicians of Koper died in that epidemic; after them came Francesco Gravisi di Elia of Koper again in 1645. During 1648 and 1655, Girolamo Vergerio, or Jeronim Vergerije (Koper, 1622–1678) worked as physician in Koper and was an excellent writer: »Vade, age, doctor evis supra doctores« (Figure 2). In 1655 he was invited to become Professor of medicine in Pisa, and in 1665 he took the chair of practical medicine in Padua. He wrote many works on medicine which met with a wide response in the medical literature of that time. His works include the introduction to clinical lectures, his views on shivers, on Avicenna, on medication, etc. Papadopoli collected ten of his works in a catalogue, without any indication of year and typography Prospero

Petronio (Koper, 1608–1688) worked in Koper and Trieste. Thanks to his expertise and scientific work, he enjoyed high appreciation and was admitted to the Ac-

cademia Palladiana. His treatise in manuscript is kept in the National Archive in Venice[25].

Cesare Zarotti (Koper, 1610 – Venice, 1670) distinguished himself after a short-term service in Koper and Venice as an extraordinary physician and excellent writer, too. Many documents prove that he was a renowned and appreciated physician also outside the borders of Italy. A small edition of the Leoniceno's translation of »Ars medicinalis« by Galen, published in 1642 by Frambotti in Padua was dedicated to him[26]. He was even quoted in the 18th century by Julije Bajamonti, who was not only a physician and polyhistorian, but also a man of letters, musician and composer from Split. Regretfully, he was completely forgotten since then – not mentioned in any biography, encyclopaedia or other work until recently. Based on the epigrams by the epigrammatist Marcialo he planned a medicohistorical treatise or comment on the medicine and philosophy from the antiquity. The treatise was designed to comprise four volumes, however, only the first volume was published thereof, dealing with hygienic, digestion, cosmetics and sexual intercourse. This work is a true presentation of life, involving criticism on the contemporary society. It comprises the information on health conditions in Rome during the Marcial period[15]. Cesare Zarotti was distinguished for his criticism of ill nutrition habits of that time and the resulting diseases, of prostitution and the resulting misery in the old age, neglect of the physical shape and personal hygiene, as well as of excessive perfuming and use of make-up. If Zarotti's work had been finished, it could in fact have served as a propaedeutic textbook to study the philosophy of medicine – which had to be taken by every student of medicine before (s)he was allowed to learn about the general medicine and finally become a doctor medicinae universae. After he completed the so-called 'physicat' level, he obtained the title and privilege to pursue the medical profession and became »excellentissimus dominus«, a personal physician of higher-class individuals, or a district or municipal doctor respectively.

By the end of the century, the doctors working in the city of Koper include: Gian Giacomo Romano (1660), Girolamo Buttironio (1663) and Almerigo D'agort (1663).

Independently from physicians were pursuing their work the surgeons: Pietro Gabrielli (Koper, 1652), who served the Emperor Leopold I. later on, and Francesco Boffo (1658).

Discussion

The health conditions in Koper in the late Middle Ages were similar to those in the neighbouring Istrian and Italian towns at that time. The development of medical activity was on equal footing with other contemporary centres of medicine. As a coastal town and a port, like Trieste, Koper needed good health protection facilities to cope with its exposure to foreign merchants who from time to time brought infectious diseases from overseas, which might have spread out from the port to hinterland. In particular in the period covered in the article, the defence against infectious diseases in Koper was quite inadequate and inefficient. It is interesting to find that in an outbreak of infectious disease, it was admissible for a physician or surgeon to escape from the city and leave the patients over to fate. Such a code of ethics is inadmissible in the present time. However, in the same breath we have to give these health workers credit for what they were capable of doing with their modest facilities for diagnostics and therapy, which looks quite unbelievable from the present-day point of view. That demanded an exceptional ability for accurate observation and experience-based acting of the physician. Through an in-depth insight in the situation and circumstances in which the medieval physicians and surgeons of Koper lived and worked, we can better understand their decisions, reflections and the development of medicine at that time. A comprehensive study of the health care and sanitation in the area of Koper between the 13th and 17th century is still before us to explore the large gaps that have remained unveiled. It would be appropriate and fruitful to integrate the Slovene, Croatian and Italian medico-historians of the adjacent areas to join forces in their study of the medieval health care and hygienics in the coastal towns along the North Adriatic and to make their findings available to all the interested parties.

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LIJEČNICI I KIRURZI GRADA KOPRA OD 14. DO 17. STOLJEĆA

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