

## Medico-legal Practices in the Fifteenth Century Dubrovnik

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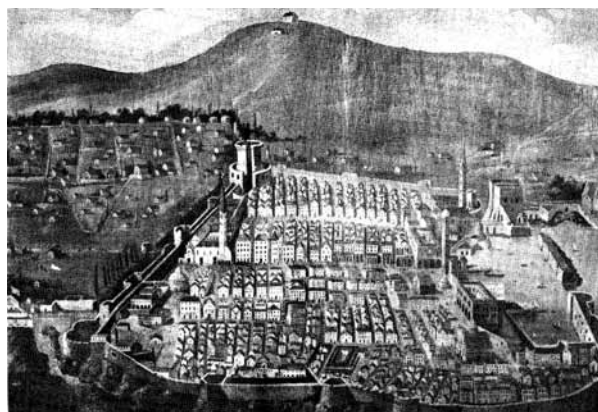
We analyzed the beginnings of medico-legal practices in Dubrovnik, using the first eight books of criminal records series *Liber de maleficiis* from the early 15th century. We also looked into the mechanisms of individual and public control of the issues such as the patient-physician relationship and the control of epidemics. At that time, surgeons rather than physicians reported wounds to the court of justice and, in most cases, provided medical expertise when requested by the authorities. Cold steel weapons were the usual instruments of violent offences, and the most frequently harmed part of the body was the head. The expert testimonies formally satisfied the requirements laid down in Dubrovnik normative acts of the time, but their medical content was poor and the vocabulary was a mixture of lay and professional. Although Dubrovnik medical practitioners wrote simple expert testimonies and did not perform forensic autopsy, their involvement in the control of violence and development of the legal system corresponded to the role played by physicians and surgeons in the leading continental European centers of the period.

**Key words:** history of medicine, forensic; medico-legal expertise; criminal records; law and medicine; 15th century; Dubrovnik-Croatia

Although forensic medicine in modern terms is a relatively young field of medicine, its beginnings can be traced to the earliest forms of social organization. To enlighten the very origins of this discipline we had to look into complex phenomena linked to community culture, morality, and law. The beginnings of legal regulation in the Adriatic communal cities present a challenging opportunity for such an investigation. Although medieval city statutes and collections of normative acts in most cases do not define the duties of the medical expert within the existing legal system, they are the best-known sources containing nomenclatures of crimes against a person, such as physical trauma, rape, and defamation of character (1). As these societies developed towards the High Middle Ages, the medico-legal expertise as the ultimate piece of evidence regarding the interrelation between the cause and effect in the field of physical traumas and violent death became a part of the compulsory duties of communal physicians and surgeons.

In this study, we focused our attention to the urban culture of medieval Dubrovnik (Fig. 1) formulated through its health policies on the micro and macro level. Examples of medico-legal practices in Dubrovnik from the Middle Age onwards are preserved in the criminal records organized in four series: *Libri de maleficiis* (1401-1816), *Lamenta de intus* (1348-1598), *Lamenta de foris* (1348-1598), and

*Lamenta de intus et de foris* (1348-1695). The four series are kept in the State Archives in Dubrovnik. While the type of crimes included in the records is generally the same, *Lamenta de intus* contains the descriptions of events that took place inside the city walls, whereas *Lamenta de foris* contains descriptions of crimes committed outside the city. The first eight books of the series *Liber de maleficiis* (2) from the early 15th century, volumes 1 (1401-1404), 2 (1407-1409), 3 (1412-1414), 4 (1415-1417), 5 (1421-1424),



**Figure 1.** Dubrovnik in the 15th century (unknown author, Museum of the Franciscan Monastery in Dubrovnik).

6 (1430-1431), 7 (1435-1437), and 8 (1437-1438), are the subject of this study. The examined period extends from 1401 to 1438, but actually encompasses not more than 23 years because some records have not survived to the present day. The sources were written in Latin by the hand of several city notaries (Fig. 2). Transcriptions of the cases from the 1421-1438 period were published elsewhere (3).

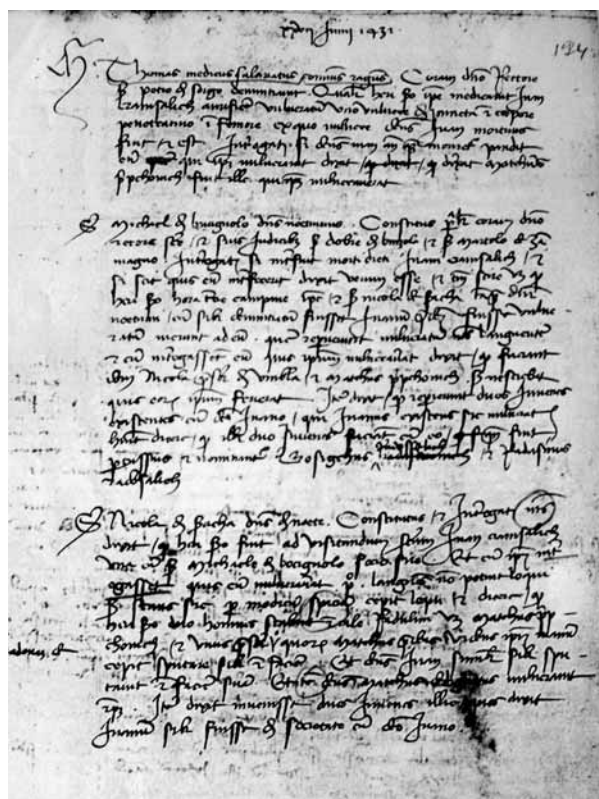


Figure 2. A page from the *Liber maleficiis* criminal records (2).

The beginning of the 15th century is the earliest period of which we have an almost complete picture – whereas most of the criminal records from the earlier periods are missing, those from the 15th century onwards have been relatively well preserved. We attempted to analyze messages communicated through the legal sanctioning of crime, including mechanisms of control in the *macro* domain (public health) and in the *micro* domain (the protection of physicians and patients rights). The terminology, ie, written formulas used in medico-legal testimonies, was also analyzed.

### Forensic Cases and Legal Regulations of Violent Offences

Following the Venetian regulation from 1281, which had codified the compulsory duty of medical practitioners to report on all the wounds and suspected physical violence, in 1315 a corresponding decree was issued in Dubrovnik, which was then a city under the Venetian rule (4,5). While the regulation was probably observed in the 14th century as well, the earliest preserved criminal records that cover a longer period date from the early 15th century. The quality of the material from the 1401-1438 period allowed an insight into what sort of practitioners appeared before the court, the number of criminal cases, the weapon of offence, and the anatomical localization of the wounds (Tables 1-3).

The control of violence was responsibility of three groups of citizens: the office of *dominus nocturnus*, ordinary citizens, and medical practitioners. The office of *dominus nocturnus* involved a nobleman accompanied by a group of commoners who patrolled the city during the night time, as a sort of precursor to the modern day police. Furthermore, wounds and homicides were frequently reported to the court by ordinary citizens. If violence was reported by *dominus nocturnus* or ordinary citizens, the court would choose a qualified expert to provide the medical testimony.

The third option was direct reporting of violence by a medical practitioner, surgeon or physician, as

Table 2. Type of instruments and frequency of their use in violent crimes

Instruments	Number
Hands	5
Cold steel (knife, sword, or arrow)	22
Stone	7
Tools (hammer)	4
Wooden objects (club or stick)	8
Unknown	6
Total	48

Table 3. Anatomical localization of the wounds inflicted in violent crimes

Anatomical localization of the wound	Number
Head and neck	27
Arm	8
Leg	3
Trunk	9
Entire body	2
Unknown	5
Total	56

Table . Medical experts with respect to their profession (physician/surgeon), the number of reported cases of violence, and the number of medical expert testimonies requested by the court

Name of practitioner	Physician/surgeon	Number of reported cases of violence, 1401-1438	Number of medical expert testimonies requested by the court, 1401-1438
Iohannes de Rechanato	surgeon	2	5
Iohannes (Paruus) de Ancona	surgeon	4	6
Iohannes de Papia	surgeon	2	9
Iohannes de Padua	surgeon	7	2
Thomas de Ancona, son of the magister Iohannes de Papia*	surgeon	9	11
Bartolus de Plombino	physician	0	2
Iohannes Mathias	surgeon	0	1
No name ( <i>per relationum medicorum</i> )	—	2	0

\*Magister Thomas de Ancona, son of the surgeon Iohannes de Papia, was mentioned in the sources both as a physician and as a surgeon. It seems that from 1422 until 1458, when he reported wounds and providing medical expert testimonies, he was employed as a communal surgeon.

they learned about it while conducting their medical duties. The frequency of appearance of medical practitioners before the court depended on the frequency of criminal acts, which in turn depended on the population size of Dubrovnik, and the population grew from 3,000 in the 14th to approximately 6,000 by the early 16th century (6). It was also related to the availability of medical practitioners. It was difficult to identify the exact number of physicians and surgeons in the city because their numbers varied as they were coming to and leaving Dubrovnik after practicing for shorter or longer period of time (7). The majority of practitioners in that period came from Italian cities, as revealed by their names, e.g., de Ancona or de Padua (Table 1).

In the analyzed 1401-1438 period, medical practitioners reported cases of violence to the court 26 times. All were surgeons, which is not surprising because the treatment of wounds and fractures was within their domain. On the other hand, the number of cases in which medical practitioners were summoned to the court to provide their expertise, regardless of who had reported the crime, was 36. Most of the cases were "simple" violent offences, but there was also a case of wife beating that resulted in a murder. Again the court more frequently subpoenaed surgeons to provide their opinions. In the analyzed series of records, we found the names of 6 surgeons and one physician, named Bartolus de Plombino. Bartolus appeared twice before the court. On the first occasion, he was summoned to determine if the death of a flute player called Bencho was a consequence of a disease or the wound inflicted by another flutist called Jurcho. Bartolus' expertise was essential because if the death was caused by the wound, Jurcho would have to face death penalty. Bartolus affirmed that Bencho had died of a natural cause that had not been directly related to the wound, but he did not explain what this natural cause actually was ("*Dictus Bencus jacebat ex infirmitate eis occursa naturaliter ex qua et proper inepititudinem vite sue defunctus est, et non prope aliqua illate vulnera*") (8).

The scantiness of expert opinions was characteristic of the official records for that period. The same physician was called to establish the cause of the death of Lucia, the wife of the school master Daniel de Putio, in the case of a premeditated attack (9). After sending away other household members, magister Daniel had locked himself with his wife in a room where he beat her to death. Daniel then visited a city pharmacist to whom he confessed that he had beaten and most likely killed his wife. The municipal authorities requested an expert opinion on the cause of the death from communal medical practitioners (*medici salariati*). Because the case involved a murder and the perpetrator came from the rank of respectable commoners, as many as three medical practitioners supplied their expertise: the physician Bartol and two communal surgeons, Iohannes de Papia and Iohannes de Ancona. In the end, Daniel was found guilty and sentenced to death by hanging. According to our knowledge, this may be the earliest reported case of wife beating on the Croatian territory.

With respect to weapons mentioned in the sources, it is evident that cold steel (knives, swords, and arrows) were the most frequently used instruments. Other objects, such as various artisan tools, bare arms, wooden items, and stones were almost equally used. Regarding the anatomical distribution of the wounds, it seems that the head was most frequently harmed part of the body.

Besides these plain facts describing the epidemiology of crime in the 15th century Dubrovnik, two cases in the examined sources provide a glimpse into the nature of the physician-patient relationship in Dubrovnik. In the first case, a stonemason named Bogoje suffered from a head wound with considerable bleeding. *Medici* Iohannes de Ancona and Iohannes de Recanato reported to the duke and judges: "...that the said Bogoje did not permit to be medically treated and would neither follow the treatment favorable to his health, nor abstain from doing harmful things. On the contrary, he does everything against the health of his head, and his disobedience might cause his death" (10).

The second one was the case of Ljubisav Jagodić, who copiously bled after being hit with a wooden stick in the head. An anonymous communal *medicus* stated before the court "that the said wounded Ljubisav does not consent to the medical treatment but instead drinks wine that has been prohibited (to him) by physicians. And it should be known that Ljubisav goes out (to the city square), so if he dies, it will be because of his own lack of care" (11).

This detail does not speak only of the transfer of responsibility from the physician to the patient but also of the prevention of possible legal and medical complications. The public control of the health of these two patients, and consequently the denial of their right to take risk with their own health, was justified by the complications of the legal process if their death would ensue. But the medical practitioners, and consequently the city that employed them, shared the responsibility for the health of the citizens, as witnessed by the law action against surgeon Iohannes de Ancona (12). He repeatedly turned a deaf ear to the requests of the city inhabitants in need of medical care (a child from de Sorgo family suffering from *glandula*, a gardener with an arm injury, the seriously ill wife of the city notary, or nuns of St Claire), and furthermore engaged in a brawl with a priest and an aristocrat. The city would tolerate neither his negligence in professional duties, nor his disgraceful behavior, so his license to practice surgery at the territory of Dubrovnik was revoked for a five-year period.

The way in which the city oversaw not only the individual but also the public body is well presented by the example of epidemics control. It is a well-known fact that the city of Dubrovnik in 1377 invented quarantine as an effective measure to protect the population from contagious diseases and keep the functioning of trade undisturbed (13). From 1426, the public health officials, the so-called *cazzamorti*, controlled the compliance to the quarantine laws by applying severe measures, such as corporeal punish-



ment, to those who dared to break these laws (14). So when Obrad Deich, a porter at the city harbor, let "many people coming from the pestiferous places, and many paupers from the parts of Sclauonia (Dubrovnik hinterlands)" into the city, the municipal authorities were not at all ready to forgive him. He was sentenced to the pillory (*ad carum*) and burning of his hair and beard (15).

### Discussion

The emergence of the institution of medico-legal expertise was triggered by the specific demands of the continental legal system that developed in Europe on the basis of Roman and canon law in the High Middle Ages (16). The continental Roman-canon system relied on the central role of professional judges and a complex law of proof in which medical practitioners were assigned the role of expert witnesses. The unification of theories of legal proof in an authoritative doctrine took place under Charles V, the emperor of the Holy Roman Empire, who issued the *Carolina* criminal code containing 230 articles on procedure and proof in 1532. The vanguards of the development of law and legal medicine alike were rich cities of Northern Italy, such as the university centre of Bologna and the commercial metropolis Venice (17). In Venice, the city that exercised an important influence on the Eastern Adriatic city communes, medieval legal medicine reached a sophisticated level where practitioners often performed dissections to determine the cause of death. Their expert testimonies were formulated using medical terminology and contained detailed descriptions of the wounds found on the victim's body, as well as explanations of the nature of the pathological entity that caused death (5).

In contrast, Dubrovnik sources provide neither evidence of dissections, nor a proof of the special education of medico-legal experts. The collections of normative acts, from the 1272 Dubrovnik Statute to the later-published volumes, contain no specific regulations concerning the practice of medical expertise (18). The above-mentioned 1315 regulation was the first where the involvement of medical practitioners in the criminal procedure was explicitly codified.

The relative silence of the Dubrovnik normative sources on the subject of medico-legal expertise is not surprising in view of the size of Dubrovnik, the relatively low occurrence of violence and violent death, and the fact that the city had neither a society of physicians nor a university as institutions that would have the power to regulate different aspects of medical practice. Still, some of the rules that governed Dubrovnik medical practitioners when reporting or examining cases of physical violence may be inferred in an indirect way. In the majority of the Mediterranean communal cities, the main criterion for sanctioning violence was shed blood (19). The aforementioned Dubrovnik 1272 Statute promulgated a punishment for a blow that caused bleeding or bruise twice as severe as for a blow that preserved the skin intact (18). Consequently, formulas used in the sources analyzed in this paper were "*cum maxima sanguinis effusione*", "*cum sanguinis effusione*", "*cum*

*liuore*", thus assigning high importance to the presence of visible hemorrhage. This is understandable as mechanisms used to describe and explain pathological conditions were based on the classical concept of balance of the four bodily fluids. Thus, the imbalance (such as bleeding) could cause a disorder of the organism and possibly even death. This doctrine recalls the modern understanding that a decrease in the blood volume may cause shock and endanger the patient's life. However, the Dubrovnik legislation and medical practice paid attention only to the bleeding visible with the naked eye, such as external bleeding and dermal bruises; it did not go beyond the surface of skin into the interior of the body. This may mean that a wound that caused fatal internal bleeding (such as spleen rupture) could go unpunished in communities such as Dubrovnik where dissections were not practiced.

The relationship between law and medicine did not exhaust itself in the role of medicine in the law enforcement. Law also had its place in the everyday medical practice and, moreover, in the issues regarding the community health. Well into the early modern period, the so-called "contracts of cure" were frequently employed to regulate responsibilities and duties of two parties that entered the "cure relationship": the patient and the physician (20). In the early period, the responsibility for the patient's health was transferred to the surgeon by a simple ritual of handing the scalpel or uttering oral formulas in which the patient gave himself or herself over to the surgeon "as if s/he were dead" (21). With the development of legal system, these rituals evolved into precisely written contracts that specified in detail rights and duties of both parties. By the late Middle Ages, these contracts of cure became characteristic of "quack" or uneducated practitioners rather than of those shielded by the university degree or a guild license (22). But the idea of necessity of regulating the responsibility for the patient's health and life is present in the analyzed material as well, as exemplified by the case of Bogoj the stonemason and of Ljubisav Jagodić (10,11). By absolving themselves (and the commune) from the responsibility, the surgeons who treated these two patients attempted to prevent two kinds of legal complications: the change of sanction from a lesser one for the violent offence to capital punishment for homicide; but also a possible charge for medical maltreatment. The charge for medical maltreatment would affect not only the surgeon in question, but also the municipality of Dubrovnik, which employed the communal medical practitioners and therefore was responsible for the quality of their service, as obvious from the case of malpractice against surgeon Iohannes de Ancona (12).

How the care for individual citizens extended to the care for the community as a whole may be gathered from the case of violation of quarantine laws. The sentence that the perpetrator received served to expose the perpetrator to the public shame and ridicule. In the hierarchy of sentences that were at the disposal to the court, this kind of punishment was placed very high, next to the death sentence, approximately at the same level as corporeal punishment, and above

almost everything else (prison, galley, or exclusion from the community) (23). The commune thus effectively sent a threatening message to the potential transgressors of the quarantine laws.

In conclusion, although the examined sources do not contain the full repertoire of crimes characteristic for a medieval society, as we found no records of poisoning, rape, infanticide, or presumed witchcraft, they do provide a good insight into the kind of crimes that Dubrovnik medical practitioners encountered on regular basis. The majority of complaints related to traumas resulting from violent attacks. Consequently, surgeons were by far the most frequently consulted medico-legal experts. From the medical viewpoint, the content of their expert testimonies was simple and the vocabulary was a mixture of lay and professional. The accounts of different experts did not differ among themselves because they were unified by the notarial language. The knowledge of human anatomy was poor and pathophysiological mechanisms used to explain natural causes of death and quantities of shed blood were based on the then-prevailing humoral theory. As dissections were not performed, the anatomical locations of wounds were only approximate (*in genu*, or *in brachio sinistro*) and rarely described precisely (*vulneratum uno vulnere de puncta in corpore penetratiuo in femore; vulnus capitis cum discoperitura ossis*; or *vulnus super capite cum fractura ossis*).

In comparison with the Northern Italian urban centers, medico-legal practice in Dubrovnik was relatively unsophisticated. However, the development of legal medicine in this city quite closely followed the trends imposed by Bologna or Venice. Medicine became an integral part of not only the control of violence but also the preservation of the extant social order. On the micro-level, this involved reporting of crimes and surveillance of the behavior of the wounded; on the macro-level, the strict enforcement of quarantine laws, whereby the severity of penalties that included imprisonment, public humiliation, and corporeal punishment, sent a powerful, threatening message to potential perpetrators. Looking at both levels, it may be concluded that in the 15th century Dubrovnik the medical authority expanded into a new social domain.

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