Abstract

Medieval medicine in Serbia used to be the scientific medicine of that time. It included dermatology and venereology, which developed into an independent discipline in the second half of the 19th century. The most relevant sources for studying dermatology and venereology are Serbian medieval medical and therapeutic codices. The terms used in the manuscripts report about the diseases people in Serbia suffered from and were treated for in the Middle Ages. The following diseases were reported: scabies, leprosy, fungal scalp infections, as well as psoriasis, crusts (pyococcal ulcers), granulation, baldness, excessive body hair, leg wounds and old wounds, facial spots, unspecified skin diseases, urethritis and syphilis. Special attention was also given to cosmetics. Topical remedies were applied – various herbs, sulphur, mercury, tar, pyrethrum, plasters, ground glass, auripigment – in the form of a powder, liniment, ointment or plaster.

The history is one and indivisible, and all events in the development of humankind or a nation together create a real totality. The segments of its overall course, neither can be viewed in isolation, nor can individual courses within a period be separated and observed outside the period. The history of medicine thus cannot be separated from the political history. The turbulent history of Serbia, with its upturns and downturns, caused a lot of discontinuity in the development of overall Serbian medicine. The history of Serbian medicine is, hence, despite numerous similarities, in many aspects different from that of nations with the continual cultural development.

It should be kept in mind that in the Middle Ages dermatology and venereology did not exist in the present sense. Even in Europe, significant articles and reports on skin diseases, written by authors today called protodermatologists, did not appear before the 18th century, while scientific dermatology emerged as “an era of disease description and classification” in the late 18th and early 19th century (1). Similar developments followed in Serbia, although under different circumstances, and to a different extent, later and slower. It is only through the overall history of medicine, hence, that we can observe the development of dermatology and venereology in Medieval Serbia. Our profession here only started evolving into a separate specialty in the 19th century, after the liberation wars.

Considering these facts, as well as important dates in the development of health care in Serbia, this review will be divided into the following sections:

- Medieval dermatology and venereology in Serbia (12th-18th century);
- Dermatology and venereology in Serbia from 1804 to 1880;
- Dermatology and venereology in Serbia from 1881 to 1918, and
- Dermatology and venereology in Serbia from 1919 to 1945.

Medieval medicine: dermatology and venereology in Serbia

Medieval medicine in Serbia refers to the period of the reign of the Nemanjić dynasty and subsequent invasion of the Ottoman Turks, lasting from the 12th to 18th century, and in some areas extending to the 20th century.

The origin of medieval medicine in Serbia

Contrary to previous opinions that medical culture in Medieval Serbia developed on the foundations of folk empiricism, its substantial part was actually based on scientific medicine of that time (2). Early Serbian medicine, in the Middle Ages, was a synthesis of Byzantine and Western European medical schools that dominated the scientific medical thought of the time. Byzantine medicine originated in antique sources and it was through Byzantine medicine that the teaching of ancient authors reached our profession (3). It was passed on by our people, monks from Serbian or Byzantine monasteries on Mount Athos. In this way, our people learned about medical sciences, but not about art of practicing medicine (3, 4). The first translations of Medieval Western European medical writers, from medical schools of Salerno and Montpellier, appeared in Serbia in the late 13th and early 14th century, brought by erudite Italian physicians and pharmacists who lived and worked in Serbia (4). It was recorded, for example, that Tsar Stefan Dusan’s physician Antonio, left two chests full of books in Serbia when leaving for Dubrovnik. Marital relationships between Serbian rulers and Western princesses were also significant. Influences of these schools in Medieval Serbia were so prevailing in both practicing medicine and pharmacotherapy and so widely present among our people that Salerno-Montpellier medicine was considered to be folk medicine (2). At the time, central Serbia was mainly under the influence of Byzantium, while coastal areas were more influenced by Western countries (5), which resulted with fusion of the two doctrines. The invaluable study of R. Katić is essential for our understanding of the period.

In addition to these influences, Serbian medieval medicine also included papers, i.e. ritual books, about magical-religious medicine of Byzantine origin (6). These books and their practical application found their place in our Medieval Medicine, including dermatology. There was a similar situation in Italy and France, where the first medical schools were founded (4). However, the writings presented only general therapeutic procedures, with little information about skin and venereal diseases and, according to our sources, were of little importance for the study of medieval dermatology and venereology. Therefore we will make only occasional reference to them.

Medicine in Serbia during the rule of the Nemanjić dynasty and the Turkish occupation (12th – 18th century)

European medicine was first introduced into Serbia in the 12th century, when the Serbian political scene stabilized and our culture got defined national characteristics (3, 7). It was during the period of the rule of the Nemanjić dynasty, which lasted for 205 years (1166 -1371), described by Jirecek as the golden period in Serbian history (8). One of the first members of the Nemanjić family - St. Sava, was the founder of the Serbian Medieval culture, as well as of the Serbian scientific medicine (7). He built the first Serbian hospitals, first in the Hilandar Monastery (1199-1200), and then in the Studenica Monastery (1208); he wrote our first manuscripts about hospital organization (9), and fought against quackery (7). His activity undoubtedly encouraged translation of significant contemporary medical writers. The succeeding members of the Nemanjić family also founded monastery hospitals. In 1308, King Milutin founded a Serbian hospital in Constantinople, in the Prodrom Monastery complex with a medical school which was being considered the nucleus of our Medical Faculty (10). In the 14th century, King Stefan Dečanski, built a hospital in the Dečani Monastery, and Tsar Dušan, another in Monastery of Holy Archangels near Prizren, both in Kosovo (3).

In the Middle Ages in Serbia, like in other European countries, along with trained physicians and surgeons, medicine was practiced by empiricist physicians, self-taught people and other unskilled persons, including quacksalvers. Trained physicians lived and worked mostly in towns, more frequently in the coastal area (Primorje which literally means “by
During the 14th and 15th centuries, Serbian medicine was advancing along with the overall cultural growth. Translations of medical and biological manuscripts from Latin and Greek resulted in a compilation of the Serbian Medieval medical terminology (11), including the dermatological terminology in which the terms were based mainly on the external appearance of skin changes and subjective complaints.

Following the fall of the Serbian Medieval state under the Turkish rule (14th-15th centuries) the Serbian overall development was disrupted and practical medicine kept its medieval characteristics until the national liberation of the Serbian country (3). Therefore, as R. Katić observed, when we speak of Medieval medicine in Serbia, we cannot limit it to the period of Middle Ages only, but rather observe the actual duration of Medieval medical practice in Serbia (2). Including structural changes in the population and migrations, many important factors affected the overall social and cultural development, as well as health care, which clearly contributed to the occurrence and spread of diseases, especially contagious ones. In the wars against the Turks, the old Serbian nobility was killed or driven into exile in Austria. The remaining Serbian population lived in scattered mountainside villages away from main roads, which at least partially protected them from the conquerors, as well as diseases. Regarding medical treatment, people had to rely exclusively on folk physicians. In contrast, the towns were populated by Turks – conquerors, land owners and warriors - who had better health care provision, but also caught infectious diseases considerably more frequently due to communication and dissolute lifestyle (12).

In the region of today’s Vojvodina, the situation was different. After the Turks started spreading out over the Balkan Peninsula, the Serbian population started migrating towards southern Austrian provinces, which went on for several centuries. As the local population retreated from Turks to the north, Serbs gradually became the majority population in these regions. They created a “Military Frontier” against the Turkish invasion towards Austria and protected spreading of epidemics from the east. In these regions Serbian culture was preserved in newly-founded monasteries in Mt. Fruška Gora. It was in this social and cultural milieu in the late 18th century that a revival of Serbian culture, including medicine, began. The first Serbian hospitals were established in Novi Sad (1730), Zemun (1758) and Vršac (1799). These hospitals employed our first trained physicians - Jovan Apostolović and Petar Miloradović, who both studied medicine in Halle, and worked in Vojvodina. Petar Miloradović wrote a dissertation on syphilis, the first manuscript in our profession written by a Serb (see Venereal diseases) (3). These physicians and their successors represent the nucleus from which our modern medicine has developed.

Meanwhile, there was a renaissance of medicine in Europe, which continued throughout the Middle Ages, influencing revival of medical thought.

**Relevant sources for studying Serbian Medieval medicine and dermatology**

The basis for studying our Medieval medicine and dermatology are the codices, i.e. therapeutic collections - our oldest medical written documents. Of particular interest for our profession are parts that concern practical medicine and pharmacotherapy, which are mostly translations of the document of the Salerno-Montpellier School (4). Most also include data from Byzantine and astrological texts, as mentioned earlier. The following are the most important (5):

The Codex of Hodoš (CHO) was written in 1369 (4). With regard to the number of diseases covered, it is our most comprehensive medicinal collection (3). The Hilandar Science About Curing All Diseases (HSACAD) originated in the 14th century (4). The Medical Codex of Hilandar (MCOH) No 517 laid the foundations of the Serbian medical terminology. The transcript saved to date was put together in the first half of the 16th century (6). Somewhat less significant, but also important for the general knowledge about medieval skin diseases and their treatment in Serbia are our other medieval codices. They were written according to the oldest
itching caused by scabies” (13). However, it is more likely that it was not scabies in the present sense of the term at all, but another disease, since there is no data that King Stefan Prvovenčani himself suffered from any kind of dermatosis. This is a good example of how ignorance, along with incorrect translation and transcription, contributed to confusion. In the Latin translation of Nicetas Choniates’s Greek text, the word “incontrollable” was ascribed to Eudokia’s behavior, not the disease, suggesting that the reason for the separation between Stefan Prvovenčani and his wife was infidelity - although from a historical perspective the reason appears to be political (13).

Scabies is included in almost all our medicinal collections, which indicates that it was very widely spread. The MCOH lists several medications. Of greatest importance for us is sulphur (5,11), still used today. The following is also recommended: mercury ointment (14); a very complicated lemon ointment made of borax, white marble powder, frankincense/olibanum and several other ingredients; emplastrum (plaster) for scabies, with no information about its composition (6); saltpeter/potassium nitrate with olive oil or soap in the form of ointment; resin, tar in the form of liniment with soap; glass ground into powder mixed with turpentine/terebinth and olive oil, with a note that exanthema should first be well scratched; several herbs in the form of liniment or oil, and even rose oil. Pyrethrum is listed in the MCOH, although not as a medicine for scabies (11).

In the Medieval Serbia, leprosy was called black death up to the 14th century, and afterwards the term was used to refer to all serious and chronic skin diseases (11). The earliest known record of leprosy in Serbia was found in the biography of Stefan Nemanja (1166-1196) (15). Stefan Decanski (14th century) also built a shelter for the leprous near the Dečani Monastery, and among the leprous was the painter of famous icons, zoographer Longin. Another leprosy shelter was founded in the Hilandar Monastery, and leprosy was recorded also in the period of Despot Stefan Lazarević (1389-1427) (14). There is a record from the early 15th century about leprosy and a leprosy Hospital in Kotor, the greatest sea port in the Old Serbian state (3).

In the present paper we are using mainly the terminology of Katić’s translations from the Old Serbian language used in codices on which our work was based on.

**Skin diseases and sexually transmitted diseases in Medieval Serbia**

Research, identification and interpretation of skin diseases and sexually transmitted diseases (STD), according to medieval documents, is very difficult, for several reasons. Firstly, as skin diseases were not fatal, they were often neglected. Further, the terminology related to skin diseases was vague, descriptions inadequate, and translations from Latin and Greek sometimes incorrect. Even in the 18th century, in the era of protodermatologists, a number of dermatological diseases were lumped together, or subdivided arbitrarily (1). Another confounding factor is that these sources contain mainly pharmacological and therapeutical and less frequently clinical data. This is, for the most part, the case with STDs, as well.

In the present paper we are using mainly the terminology of Katić’s translations from the Old Serbian language used in codices on which our work was based on.

**Scabies** is among the earliest reported skin diseases in Serbia. In the 12th century, Nemanja’s contemporary, the chronicler Nicetas Choniates, in his "Historia" noted that the King Stefan Prvovenčani’s first wife, Eudokia, suffered from "uncontrollable
people with leprosy had “rotten face with flesh falling off the bones”, and the zoographer Longin describing his own disease spoke of pus-filled crusts “that hurt bitterly” (14). Healing of the leprous was among the favorite motives in Serbian Medieval frescoes (3) (Fig. 1). Yet, there is little data about actual treatment of leprosy in our medical collections, probably because it was incurable. The CHO recommends bloodletting, particularly in the middle of March, April and May, indicating evident effects of ancient, and astrological medicine. Crushed cinnamon with honey and wine was also advised (4). MCOH recommended: laurel oil (11).

Fungal diseases of the head probably included: crusts on the head in children according to CHO (4), "evil crusts on the head" according to MCOH (6) and "crusts on the head" in the Dečani Codex in the 16th century, as well as in the Codex of Grigorović (CGRI) in the 17th century (2,5). Most likely, these correspond to fungal diseases of the scalp, although psoriasis cannot be ruled out definitely. Treatment by (CHO): haircut, hair wash using a mixture of boiled blackberry leaves and wine, compression with lentils boiled in a mixture of wine and water, application of a mixed burnt cotton paper, wine and mercury. Bloodletting was obligatory (4). The CGRI lists lichen (probably mycosis, eczema or psoriasis), for which crumbled cucullus (Latin) known as a hood, with vinegar and sulphur was prescribed (5).

Crusts (pyococcal skin lesions): HSACAD and CHO advised application of sulphur and vinegar ointment (4). Vinegar was used as a disinfectant at that time (14); CHO: a mixture of almond oil and cow’s butter; juice squeezed from ivy leaves, salt, wine and oil; Russian oil (Latin: Elaeagnus angustifolia) (4).

Nicina (CHO): refers to a purulent wound (11).

Skin Rashes: According to CHO, the main treatment is a special diet – the food must not be hot (spicy), but fresh and include bread made of pure flour, soft-boiled eggs, warm sheep’s milk, fresh meat...
and fish (4) (Urticaria and Exanthema are probably synonyms for rash).

Unspecified skin diseases: MCOH: general medications for skin diseases are horse radish ointment (6); Lapsana Communis (Latin) common nipplewort used against bites and abscesses in the form of liniment (11,16).

Extensive Hairiness: orpiment (Latin: auri-pigmentum) is a mineral (arsenic sulphide) medicine (6, 17) which was used for depilation. In order to check its efficacy, it was recommended to dip a feather into the solution to determine the activity of the medicine (4).

Proliferated tissue: Procedures for tissue reduction are described. The MCOH lists mostly plants or their resins (5, 11), and emplastrum (Latin), the composition of which is unknown (11).

Baldness (hair loss) is frequently included in these old books. CHO: a donkey’s hoof should be burnt, then (unclear in the original manuscript....) should be made, and applied on the areas where the hair has fallen out, and it will soon grow again. Other medicines are herbal, often prepared in strong red wine (4, 5).

Old wounds (any incurable wound) CHO: A new sea sponge should be soaked in vinegar and tied to the wound; sulphur dissolved in white vinegar (4). In order to drain pus from the wound: black ointment made of colophony and frankincense (6); MCOH: iris (“herb”) should be used in the form of powder (11).

Leg wounds: CHO: Wash the wound with a sponge soaked in vinegar, bind it up until it heals (4); MCOH: basilicon ointment made of sweet basil (Latin: Ocimum basilicum), a plant used against burns, frankincense, tar, wax and (animal) fat, as well as emplastri (juice made of several plants) (6,16). Therapeutic effects of tar in dermatology are accepted to date, although for different indications. According to Gilje, application of plasters can be compared to the ulcer treatment.

Non-healing wounds, chronic purulent wounds, suppurative eczemas: MCOH: antimonium ground into powder and mixed with dissolved soap (11).

Decubitus: anise butter (MCOH), made of anise, wormwood/absinthe and olive oil (11).

Facial spots (probably acne): CHO: local application of marble powder and egg white; finely chopped lily root with vinegar, as well as mixture of alder (Lat: Rhamnus), a herb used as a remedy against itch (11,16) and dried swallow dung (4).

Facial treatment: cosmetics was important in Medieval Serbia. CHO: horse bean flour, goose fat with sesame oil (4); MCOH: lemon ointment (see Scabies), for facial skin whitening (2,6); mercury (“for whitening/bleaching”), which was used until the first decades of the 20th century; honey and camphor; saltpeter with honey for fading facial freckles; various herbs, sometimes mixed with rose water (11).

Flea treatment: soak a broom with a black male goat’s blood, leave it overnight in the middle of the room and remove it the next morning; fleas will be collected on it (4). This recipe was very important, because of plague transmission by fleas raging throughout the Middle Ages (14).

Lice infestation: MCOH: use saltpeter (potassium nitrate) with olive oil or soap in the form of ointment (11); or mercury (14). These recipes were important because lice were a common part of general hygienic conditions in which our people lived under Turks, causing epidemics of louse-borne typhus. The situation was similar in other countries, and there are records from the 16th century, stating that “men and women, even the most distinguished ones, were full of fleas and lice” (18).

Syphilis: there are no traces of the existence of this disease in Serbia before the 15th century (14). Syphilis spread to the Balkan Peninsula during the Turkish invasion (2); However, The Codex of Bosnia first mentions it in the 17-18th centuries; CGRI (16th century) provides a brief description that may correspond to “Ulcus molle” or “Ulcus durum” (“when men contracted the disease from immoral women”) (5). Syphilis was brought to Serbia from Italy through coastal towns of Dalmatia, while from the north it was spread by Austrian soldiers, who fought against the Osmanli Army on the territory of Serbia (14); migrations from Romania in the 18th century also contributed to its spreading (19). In our regions, a great epidemic was recorded in Banat, and consequently a hospital for venereal diseases was founded in Vršac in 1779. The treatment included "placement of calomel and mercury solution, followed by nitric acid and mercurius corrosivus” (3).
Syphilis was common in towns, populated mainly by Turks, while it was rarely found in villages, populated exclusively by Serbian people. As mentioned earlier, the first manuscript in our profession written by a Serb was Petar Miloradović’s doctoral dissertation on syphilis (De innocendi infectione venerea, 1768). His work was theoretical, but the ways of infection transmission are still valid (14). It seems that in that period, syphilis was more frequent in the Northwestern than in the central parts of Serbia (5).

Urethrites were known since ancient history; they were usually named by symptoms, and it was emphasized that they were transmitted through sexual intercourse (20). Although our medieval sources do not analyze these diseases specifically, MCHO contains a part on uroscopy, and sections about milk-like urine or yellow-green discharge (6). It seems likely that at least some of these cases were gonorrhea or non-gonorrheal urethritis.

There are also a few documents about the treatment of sexually-transmitted diseases, and it should be kept in mind that the belief that syphilis and gonorrhea were the same disease, was still common in Europe in the 18th century (20). The MCHO lists letargiro (lead oxide) for the treatment of venereal diseases, as well as mercury, mainly for genital infections in men (11), but emphasizing that both substances are toxic (5). It is not specified what types of venereal diseases these are, though. According to the CGRI, the wound should be dressed with crushed rose hip (5). In relation to the ways of transmission of STIDs, they are said to be caused by too frequent sexual intercourses - “of spending too much time with women” (2).

With regard to venereal diseases, maybe it might be appropriate to discuss the appearance of prostitution in our medieval state. For the majority of our rural population this problem did not exist. It was a problem in our towns. (3). However, it is known that prostitution was spread in the coastal towns in Medieval Serbia. In Budva, whores started wearing head-coverings. Prostitution was present in Belgrade as well, and in 1643 it was recorded that people used to throw innkeepers and prostitutes in the river Sava, believing that their shameful lifestyle was the cause of frequent outbreaks of plague (3). In addition, Turkish soldiers used to rape women in the conquered Serbia, which represented a special form of promiscuity. Other contributing factors were other armies passing through Serbia over the period (14). Prostitution came to the coastal parts of Serbia from Italy, and to the northern parts from Austria (3).

Finally, it is necessary to point to two substances, which are not medicines:

Violet: (MCHOH) with no medicinal value, but highly improving in preparation of various oils called "djulat" (11).

Tow was used instead of cotton (4).

In conclusion, we would like to emphasize that our Medieval codices recorded not only medicines and minerals used in the scientific medicine of that time, but also animal products. Plants ("herbs") were almost always present in the treatment of skin diseases. The substances were applied in the forms of powder, ointment, liniment or plaster, and herbs were mixed with wine, vinegar and honey. Sometimes their usage was fantastic and illogical (3) and sometimes justified. There were also medicines, which are used to date, such as sulfur, pyrethrum, tars and resins, and until recently used mercury. However, they were not always used for indications like today. The most frequently reported dermatological and venereological diseases were those caused by infections. One more field of interest in medieval medicine we would like to point out is cosmetic defects and their treatment.

Following the liberation from the centuries-long Turkish occupation, together with the revival of the Serbian state, there began the development of modern medicine in Serbia.

References:

Istorija dermatovenerologije u Srbiji - I deo: Srednjovekovna dermatovenerologija

Sažetak

Dermatovenerologija kao samostalna disciplina u Srbiji stvara se tek u drugoj polovini XIX veka, tako da se njen rani razvoj proučava u okviru srednjovekovne medicine, koja je bila naučna medicina toga doba i predstavljala je sintezu vizantijske i zapadnoevropske nauke. Izvori za proučavanje srednjovekovne dermatovenerologije u Srbiji su naši medicinski i terapijski zbornici toga doba. Iz termina i opisa bolesti upotrebljenih u njima vidi se od čega su naši ljudi u srednjem veku bolovali i kako su se lečili.

"Šuga" je prva bolest kože koja se pominje, a u lečenju se primjenjuje oduševljiv nji pomorskih županija (ili psorijaza), savjetuje se šišanje, mestite i biljni melemi; za kraste (piokokna obojenja?) – sumpor; granulacije na ranama - specijalna smola u medu i sirćetu i emplastri; čelavost - biljni preparati; dlakavost – auripimentum; ospe, oboljenja kože - biljni linimenti; lišaj (psorijaza, mikoz); rane na nozi - katran i emplastrum (Gilje!), stare ranе - katran; sifilis se pominje tek od XV veka, a nailazi se i na oboljenja s abnormalnim uretralnim sekretom (uretritisi).

Negovana je kozmetika: za pege je davana limunska mast i živa, a za negu lica guščije salo sa susamovim uljem, brašno od boba.

Protiv insekata (vaši, buve) pored određenih postupaka, davana je i živa. Kao što se vidi, terapija je bila lokalna, a upotrebljavani su biljni lekovi, ali i hemijske supstancije. Neki lekovi mogu naći svoj ekvivalent i u današnje vreme.

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