REVIEW

Medical and Social Aspects of Syphilis in the Balkans from the mid-19th Century to the Interwar

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The current study presents some aspects of syphilis in the Balkan Peninsula from the 19th century until the Interwar. Ever since the birth of modern Balkan States (Greece, Bulgaria, Turkey and Serbia), urbanization, poverty and the frequent wars have been considered the major factors conducive to the spread of syphilis. The measures against sex work and sexually transmitted diseases (STDs) were taken in two aspects, one medical and the other legislative. In this period, numerous hospitals for venereal diseases were established in the Balkan countries. In line with the international diagnostic approach and therapeutic standards, laboratory examinations in these Balkan hospitals included spirochete examination, Wassermann reaction, precipitation reaction and cerebrospinal fluid examination. Despite the strict legislation and the adoption of relevant laws against illegal sex work, public health services were unable to curb the spread of syphilis. Medical and social factors such as poverty, citizen's ignorance of STDs, misguided medical perceptions, lack of sanitary control of prostitution and epidemiological studies, are highlighted in this study. These factors were the major causes that helped syphilis spread in the Balkan countries during the 19th and early 20th century. The value of these aspects as a historic paradigm is diachronic. Failure to comply with the laws and the dysfunction of public services during periods of war or socio-economic crises are both factors facilitating the spread of STDs.

INTRODUCTION

Syphilis is a chronic sexually transmitted disease (STD) caused by *Treponema pallidum*. The genus *Treponema* includes *Treponema carateum* (causative agent of pinta) and *Treponema pallidum*, which has three subdivisions: *T. pallidum* subsp. *pallidum* (venereal and congenital syphilis), *T. pallidum* subsp. *pertenue* (yaws) and *T. pallidum* subsp. *endemicum* (bejel).¹

The introduction of penicillin in the late 1940s resulted in the decrease of overall syphilis incidence.² However, during the first decade of the 21st century the incidence of syphilis increased, with the total number of new cases estimated to be 10.6 million in 2008.³ Nowadays, syphilis is once again targeted by the sanitary programming plans of the WHO, either as a distinct disease or an HIV-related co-infection. Syphilis control and eradication is part of the extensive programme of the WHO against STDs, whose target is a 90%

reduction in the incidence of *T. pallidum* (2018 global baseline). However, diachronic factors such as poverty, low hygiene standards, political instability and war should always be taken into consideration.^{4,5}

Syphilis was the most severe STD in the history of public health until the emergence of AIDS. It was inextricably linked to sex work and became the center of attention of the global medical community. The history of syphilis is associated with factors such as the socio-economic history of each country, the lack of medical knowledge and the ignorance of citizens as a whole, all of which contributed to the disease spreading worldwide.⁶ In this study, specific brief data related to the factors that contributed to the spreading of syphilis in Greece, Bulgaria, Serbia and Turkey are presented. The Balkan nations have a long and turbulent history, coupled with strong cultural interactions and similar sociological backgrounds.

This latter similarity played an important role in the spreading of syphilis.

In the 19th century, the Ottoman Empire and the newly founded Balkan states of Greece, Bulgaria and Serbia faced similar organizational problems as far as their health services were concerned. Until the establishment of the first universities and medical schools in the Balkans, folk healers and indigenous doctors who had studied at major universities in Italy, France, Germany and Austria held an important role in the Balkan societies. One of the first concerns of the new states was the protection of public health for social, economic and military reasons. With regard to infectious diseases, the major threats stemmed from diseases such as tuberculosis, cholera, typhoid, malaria and syphilis. The Balkan countries attempted to confine these diseases by both scientific (detection, isolation and treatment of patients) and legislative (laws and regulations on sex work) means.

THE SOCIOLOGY OF SYPHILIS: THE CASES OF ATHENS AND ANKARA

The establishment of the new Balkan states was accompanied by the creation of new urban centers. In turn, the accumulation of the population in urban centers was complemented with the first signs of social inequalities and low living standards. At the same time, the first phenomena of marginalization, delinquency, social and class hatred appeared. These conditions were ideal factors for the flowering of delinquency and sex work. The turbulent war periods in the Balkan history led to an increase of poverty among the local populations, which in turn triggered sex work. The cases of Athens and Ankara are two typical examples of the interactions between socioeconomic factors, politics and diseases.

In 1833, after Greece gained its independence from the Ottoman Empire and the international recognition as a state from the great forces of that era, a large number of veterans (estimated at 13,000) suddenly found themselves without an objective and reason of existence. As a result, thousands of them flocked to Athens with their families.⁷ Despite its mere 10,000 inhabitants, the new capital was teeming with beggars, villains and sex workers. The problem was so serious in the capital of the new, tiny kingdom, that only a year after its founding the Bavarian King of Greece, Otto I, issued a law entitled "*Directive on Public Women and Brothels*" (1834).⁸ According to this law, sex work was recognized as a profession,

whereas the relevant authorization was issued by the Bavarian police and granted only to women over 18 years old, who were subject to weekly examinations by a physician.⁹ The law of 1834 was supplemented in 1894, when for the first time sex workers were obliged to carry a health card, with their respective photograph on the front page bearing the stamp of the Police.⁷ In 1923, Law 3032 "*on Measures to Control Venereal Diseases and on Indecent Women*" was passed.¹⁰ Law 3032 provided for the appointment of three-member committees in each prefecture, under the title "*Committee for the Control of Venereal Diseases*". Despite these laws, illegal sex work became a major problem. During the period 1925-1931 and according to the data of the "Sexually Transmitted Diseases Clinic for Sex Workers" in Athens (who were divided into regular and exceptional), exceptional sex workers (registered as secretly fornicated) were more prone to syphilis infections than regular registered sex workers.¹¹ The study of the medical records of Athens Venereal Hospital "Andreas Syngros" for the period 1931-1935 revealed 5,333 cases of voluntary or involuntary admissions of patients with syphilis in various stages. The age spectrum of syphilitic sex workers ranged from 16-40 years, whereas the age group 16-20 years corresponds to 24% of all patients.¹²

The case of Ankara is almost similar. After the establishment of the Turkish Republic (1923), the Ankara-based leadership focused on public health issues and attempted to control various diseases, among them syphilis. As a consequence of World War I, many young women turned to sex work. Illegal sex work increased and syphilis spread to every province of the country. The sex workers who migrated to Ankara for new opportunities were not subject to medical examinations; thus, among the first projects that the Ministry of Health undertook was the campaign against syphilis and the introduction of relevant laws, such as the "*Public Health Law*" and the "*Law for the Prevention and Containment of Syphilis*".¹³⁻¹⁴

SYPHILIS IN BULGARIA AND SERBIA

Bulgaria and Serbia also focused on treatment, legislation and public education. The first Unit of SDTs in Bulgaria was founded in Sofia in 1893. Notably, the Bulgarian Red Cross played a significant role, as it realized the need for generalized mobilisation even in peacetime – and not only in war periods. In 1886, the Bulgarian Red Cross concentrated on

the national fight against STDs and syphilis. In 1908, its headquarters set up a committee to conduct studies on the financial planning of the fight against syphilis.¹⁵

In 1931, according to the data presented at the First National Conference on Syphilis organized by the Dermatological Society of Bulgaria, 1% of the population suffered from syphilis. This estimate included those suffering from endemic syphilis, which was common at that time in certain districts, while approximately one-third of the patients had primary syphilis.¹⁶

In Serbia, after the liberation of the country (1878), venereal diseases were included in the agenda of the new State. During the period 1880-1897, there were 12,354 Serbian soldiers with venereal diseases and 14.2% of them had syphilis. According to official statistics, 0.26% of the total Serbian population suffered from syphilis in 1898.¹⁷ A series of sanitary laws were introduced in that period, such as the "*Law on the Organization of the Sanitary Profession and Public Health*", the "*Prostitution Regulations*" and the "*Regulations of the Hospital Funds gained for Prostitutes*".¹⁸ Sex work and syphilis spread rapidly during and after the years of World War I. In 1926, the Serbian Health Authorities issued "*Temporary Measures for the Prevention of Venereal Diseases*". According to the Serbian data, illegal sex work was responsible for almost 80% of all infections. Interestingly, among 408 women under control, after a 3-year follow-up examination only one was found to be healthy, while the rest had been infected and received treatment on a regular basis.¹⁹

It seems that in the Balkans, as everywhere else, when the legislation was focused on the criminalization of at-risk individuals, the final result was disastrous. In contrast, where the spirit of the legislation was the implementation of the health structures and the welfare policy, the result was completely different. Typical examples are the cases of Britain and the Weimar Republic. In the case of the Imperial Britain in 1916, the attention of the Royal Commission on Venereal Diseases focused on the improvement of the health-care units and social work on behalf of the sex workers rather than on new legislations.²⁰⁻²²

The case of Weimar Republic was similar to the British concept. In 1927, the Law for Combating Venereal Diseases abolished the state regulated sex work and decriminalized the sex workers in general. The great contribution of the law was the fact that

for the first time in Germany medical authorities were those that were responsible for the patients and not the Police.²³⁻²⁴

ATTEMPTS OF SCIENTIFIC CONTACTS BETWEEN THE BALKAN DERMATOLOGISTS

In May 1928, the Pan-Slavic Association of Dermatovenereologists was founded in Prague in order to unite the Slavic dermatologists on professional level (by Prof. Krzysztalowicz (1868 – 1931) from Warsaw and Prof. Schamberger (1871 – 1944) from Prague).²⁵ The Association included Bulgarian, Czechoslovakian, Polish and Yugoslav national associations and the first president was Prof. Krzysztalowicz. The 1st Congress of the Pan-Slavic Association of Dermatovenereologists was held in Warsaw in 1929. The 2nd Congress of the Pan-Slavic Association of Dermatovenereologists was held in Belgrade in June 1931 under the presidency of Prof. D. Dordevic.²⁶ The congress was attended by representatives from the Slavic national associations and participants from Greece, Turkey, Romania and France. The number of participants amounted to 160 physicians.³⁵ The proceedings of the congress show that 104 papers were presented, most of them from the field of STDs (43 papers, 41.35% of the total number). Out of these, 27 research and experimental papers (62.7%) were on syphilis.²⁷ The 3rd Congress was organized in Prague in 1934 under the presidency of Prof. Schamberger.²⁸ Unfortunately, this scientific initiative was not long-lived.

ENDEMIC SYPHILIS IN THE BALKANS: THE CASE OF BOSNIA

Endemic treponematoses include chronic bacterial infections such as yaws, endemic syphilis and pinta. This group of treponematoses was a serious health problem in many developed countries during the 20th century. According to the estimates of the WHO, in 1996 this group of treponematoses yielded a global prevalence of 2.5 million cases.²⁹ The number of disabled persons is estimated at 260,000 cases globally.³⁰ Acute infection with endemic syphilis primarily affected the 2- to 15-year-old age group in dry climates. The disease is prevalent among people living under low standard hygienic conditions.³⁰⁻³¹

Endemic syphilis has existed in Europe since the 16th century. The data for endemic syphilis in the Balkans are derived from travellers' and physicians' narrations. The disease appeared in northern Greece during the Greek War of Independence (1821-1832). The local healers considered

it as a form of leprosy, but it was Karl Wibner in 1837 who affirmed the disease was syphilis. Greek physicians called the disease “*spyrokolon*”. According to the Bavarian Professor of Chemistry and Experimental Physics in the Medical School of the Othonian University of Athens, Xavier Landerer (1844-1869), the Greek territories were infected during the campaign of Ibrahim Pasha of Egypt against the Greeks, in 1823-24.³²

A similar endemic syphilis was present in Serbia in the early 19th century. The case of Bosnia is the most interesting case of endemic syphilis. The descriptions of syphilis in the area are derived from the 17th century. The famous Turkish traveler Evlija Čelebija mentioned the existence of syphilis in Bosnia during his travels in 1660-1665. However, the origin of endemic syphilis in Bosnia is under question. According to the most recent theories, the disease was introduced by Ottoman, Venetian or French soldiers.³³⁻³⁴

The 19th century was a turbulent period for Bosnia, which was under Ottoman occupation from the 15th century until the Herzegovina Uprising (1875-77), then part of the Austro-Hungarian Empire (1878-1918) and later part of the Kingdom of Yugoslavia (1918-1941). The historical adventures of Bosnia led to poverty and low hygienic standards. Between 1885 and 1911, 8.3% of the examined population was infected with endemic syphilis. According to the data of a post-world war I study, during the period 1927-1933, 11.8% of the patients examined had been infected with the disease. During the Interwar period, the health authorities attempted to stop endemic syphilis using arsenicals, but their efforts failed. Endemic syphilis in Bosnia had all the characteristics of a “family” disease and the infection was often transmitted from one family member to another. According to contemporaneous observations, the infection-rate among children varied according to the infection of one (36.3%) or both parents (51.6%).³⁴

The case of Bosnia illustrated the scientific ignorance of the nature of syphilis, as the theories of the period supported that certain forms of syphilis appeared more frequently than others. In the case of Bosnia, the impression of the benign nature of syphilis was commonly accepted. Finally, as a result of the field studies of the Zagreb School of Public Health in 1934-35, which were carried out with the financial assistance of the Rockefeller Foundation, it was established that the manifestations of endemic syphilis in Bosnia had no difference from

those of venereally acquired syphilis.³⁴

After World War II, it was estimated that there were about 50 million cases of yaws worldwide, a million endemic cases of syphilis, while approximately 20 million individuals were thought to suffer from venereal syphilis globally.³⁵ In 1948, the United Nations International Children’s Emergency Fund (UNICEF) and the World Health Organization (WHO), sponsored a global control syphilis program in 46 countries. In the same year, Yugoslavia, with the help of UNICEF and WHO, initiated a syphilis control program focusing in Bosnia. The campaign consisted of the serologic examination of about 438,000 persons (or 95% of the population), and treatment of all households using procaine penicillin G in oil with 2% aluminium monostearate (PAM). Moreover, another aspect of the program entailed the enlightenment and education of the population.^{34,36} The program of UNICEF-WHO, with the goals of screening, treating individuals (with active or latent infection) and periodic surveys, led to the reduction of endemic treponematoses by 95%.³⁷⁻³⁹

DIAGNOSTIC AND THERAPEUTIC APPROACH TO SYPHILIS

Based on the international practice, the Balkan venereology made use of various lab examinations, like the spirochete examination or the Wassermann reaction, the precipitation reaction and cerebrospinal fluid examination.⁴⁰ The Wasserman test was extremely helpful for the determination of infected individuals, but the method had low specificity and the result was often subject to error. During the Interwar, the physicians indicated that 2-14% of all Wasserman tests produced false positive results. Other researchers had suggested that Wasserman tests produced more than 25% false positives. Actually, many individuals suffered the toxic reactions of the syphilitic therapy of an incorrect Wasserman positive result.⁴¹⁻⁴² The low specificity of the method and the false-positive results due to the cross-reactions with *Plasmodium* spp. and *Mycobacterium tuberculosis*, were the main causes for the high rates of prevalence in the official documents of the health authorities.⁴³

Based on the medical knowledge of the era, the four-year therapeutic process may have “improved” the syphilitic skin manifestations, but at the same time it had serious side effects. Treatment with mercury usually caused irritation of the skin (pain, redness, necrotic abscesses), mercurial stomatitis

(pain and bleeding from the gums, lesions on the tongue), gastrointestinal disturbances (liver and kidneys), anemia and fever.⁴⁴ The arsenic treatment using Paul Ehrlich's arsphenamine, known under its commercial name *Salvarsan*, usually caused side effects like disturbances of hypersalivation, bradycardia, lung edema, gastrointestinal disturbances, stomatitis, exfoliative dermatitis, anemia, hemorrhagic purpura, hepatic and renal failure.⁴⁵ Common side effects of bismuth were skin rashes, anemia and bismuth stomatitis.⁴⁶ The most frequent side effects of potassium iodide included redness of skin, pemphigus and acute laryngeal edema.⁴⁷

SYPHILIS IN MODERN BALKAN STATES

Syphilis in the Balkans showed specific variations in every country. In the case of Serbia, it seems that during the period of civil war, accompanied with specific socioeconomic conditions between 1991 and 1995, syphilis was mainly imported by Serbian citizens employed in former republics of the Soviet Union.⁴⁸ According to the data of the blood donors screening tests during the period 2010-2013 in the Blood Transfusion Institute and Military Medical Academy, the recorded percentages of syphilis-positive donations were 0.04% and 0.06%, respectively.⁴⁹ In Turkey, during period 2007-2014 from women who were routinely screened for syphilis as a part of antenatal care the syphilis seroprevalence rate was 0.06%.⁵⁰ In Greece, during the period 2005-2012, the total number of patients with primary syphilis has risen from 111 in 2005 to 158 in 2012, an increase of 42.3%.⁵¹

CONCLUSIONS

Syphilis was a major public health problem in the newly established Balkan states between the 19th century and World War II. The turbulent war periods and conflicts of the area that caused internal migration, combined with specific long-term consequences of rapid urbanization, such as poverty and the increase of sex work, had a significant impact on the evolution of syphilis. In addition, non-compliance with sanitary regulations, coupled with the lack of public awareness of the nature of the disease, resulted in an increase in the prevalence of syphilis. The mentality of policy measures against syphilis in the new Balkan states was rather legislative than medicinal. During the Interwar, the epidemiological approach in the Balkan States had a common characteristic: most measures against syphilis were characterized by a non-systematic examination of the

foci, with few exceptions. Moreover, a significant number of cases were not detected by the medical authorities. It seems that the combination of classic socio-economic factors, ineffective treatment, the lack of accurate epidemiological data and the mistaken management of patients, led to the failure of syphilis control in the Balkan states until the mid-20th century.

REFERENCES

1. Mégraud F, Thijsen S. Curved and Spiral Bacilli. In: Cohen J, Powderly W. Infectious Diseases, Mosby, Edinburgh 2004:2233-5
2. Murray P, Rosenthal K, Pfaller M. Medical Microbiology Elsevier Philadelphia 2013;322-3.
3. World Health Organization. Global incidence and prevalence of selected curable sexually transmitted infections-2008. WHO, Geneva 2008.
4. WHO Secretariat EB138/31, Draft global health sector strategy on sexually transmitted infections, 2016–2021. Geneva, 30 December 2015.
5. United Nations. The Global Strategy for women's, children's and adolescents' health (2016-2030). UN-WHO 2015.
6. Arrizabalaga J. Syphilis. In: Kiple K. The Cambridge Historical Dictionary of Diseases. Cambridge: Cambridge University Press; 2003.
7. Korasidou M. The miserable of Athens and their healers: poverty and philanthropy in the Greek capital of 19th century. Athens: Center of Modern Greek Studies/National Research Institute;1995.
8. Ottonian Archive of Ministry of Public Affairs. Series III, Police, f. 143,1834. General State Archives of Greece.
9. Korasidou M. Surveillance and control of Health in Greece (19th c.). Ed. Athens: Dardano;2002.
10. Act 3032 "On measures to control STDs and on indecent women". Ministry of Internal Affairs and Hygiene. Athens: National Typography;1923.
11. Kopanaris F. Public Health in Greece-Proceedings of the Directorate of Health, Ministry of Hygiene. Athens 1933.
12. Pagratis N, Tsiamis C, Mandyla M, Bampounis C, Anoyatis-Pelé D. Medical, demographical and social aspects of syphilis: the case of infected sex workers in Greece during Interwar. Ital J Dermatol Venerol 2014;149 (4):461-9.
13. Evered E, Evered K. Sex and the capital city: the political framing of syphilis and prostitution in early republican Ankara. J Hist Med Allied Sci 2013;68 (2):266-99.
14. Evered K, Evered E. Syphilis and prostitution in the socio-medical geographies of Turkey's early republican provinces. Health Place 2012;18:528-35.
15. Topuzov V, Gladilov S. Bulgarian Red Cross (1878-

- 1998). Bulgarian Red Cross-National Committee. Sofia: Publ. Prof. Marin Drinov;1998.
16. Popchristov P. Incidence of venereal diseases and the campaign against them in Bulgaria. *Br J Vener Dis* 1960 36(125):125-7.
17. Lalević-Vasić B. History of Dermatology and Venereology in Serbia-part III/2: Dermatovenereology in Serbia from 1881-1918. *Serb J Dermatol Venereol* 2009;4:159-65.
18. Lalević-Vasić B. History of Dermatology and Venereology in Serbia-part III/1: Dermatovenereology in Serbia from 1881-1918. *Serb J Dermatol Venereol* 2009;3:123-7.
19. Lalević-Vasić B. History of Dermatology and Venereology in Serbia-part IV/3: Dermatovenereology in Serbia from 1919-1945. *Serb J Dermatol Venereol* 2010;2:111-6.
20. Levine P. Prostitution, Race and Politics: policing Venereal Diseases in the British Empire. Routledge, New York & London 2003.
21. Editorial. The Prevention and Treatment of Venereal Diseases: The Intervention of the State. *Lancet* 1916; 188 (4847):153-4.
22. Report of the Royal Commission on Venereal Diseases. *Br Med J* 1916;1:229-38.
23. Osborne C. The Politics of the Body in Weimar Germany. Palgrave Macmillan, London 1992.
24. Roos J. Weimar through the lens of Gender: Prostitution, Woman's emancipation and German Democracy (1919-1933). University of Michigan Press, Michigan 2010.
25. Grzybowski A. Polish dermatology in the 19th and the first half of the 20th centuries. *Int J Dermatol* 2008;47:91-101.
26. Ilić S. 2nd Congress of the Pan-Slavic association of dermatologists. *Med Pregl* 1931;6(8):229-34.
27. Lalević-Vasić B. The 2nd Congress of the Pan-Slavic Association of Dermatovenereologists, Belgrade 1931. *Serb J Dermatol Venereol* 2010;4:130-7.
28. Resl V, Zahejski J, Hercogova J. Czech society of dermatology and venereology. In: Hercogova J, Delescluse J, Lotti TM, eds. Millennium dermatologicum. European handbook of dermatological societies. Hradec Kralove: Aurius;2002:4550.
29. Meheus A., Arya O. Endemic Treponematoses. In: Cohen J, Powderly W. Infectious Diseases, Mosby, Edinburgh 2004:2233-5.
30. Balachandran C, Sathish P, Endemic treponematoses. In: Gupta S, Kumar B. eds, Sexually Transmitted Infections, 2nd edition. New Delhi: Elsevier, 2012: 467-72.
31. Meheus A, Tikhomirov E. Endemic treponematoses. In: Holmes KK, et al, eds. Sexually Transmitted diseases. New York: McGraw Hill; 2008:685-8.
32. Landerer X. Ueber die in Griechenland vor kommen de krankheit spirokolon. *Archiv der Pharmazie* 1854; 130:151-2.
33. Lipozenčić J., Marinović B., Gruber F. Endemic syphilis in Europe. *Clin Dermatol* 2014;34:219-226.
34. Grin E. Epidemiology and control of endemic syphilis. Report on a Mass-treatment campaign in Bosnia. WHO, Geneva 1953:20-30.
35. Guthe T. 1960. The treponematoses as a world problem. *Br J Vener Dis* 36:67-77.
36. Arslanagić N, Bokonjić M, Macanović K. Eradication of endemic syphilis in Bosnia. *Genitourin Med.* 1989;65:4-7.
37. WHO. 1988. Four decades of achievement: 1948-1988. Highlights of the work of WHO. WHO, Geneva, Switzerland.
38. Antal GM, Causse G. 1985. The control of endemic treponematoses. *Rev Infect Dis* 7(Suppl 2):S220-S226.
39. Giacani L, Lukeharta S. The Endemic Treponematoses. *Clin Microbiol Rev* 2014; 27(1):89-115.
40. Löwy I. Scientific facts and their public: the history of the diagnosis of syphilis. *Rev Synth* 1995; 116(1):27-54.
41. Brandt A. No magic bullet: A social history of venereal disease in the United States since 1880. New York, Oxford University Press 1987:152-3.
42. Anonymous. The Wasserman test for syphilis in practice. *Cal State J Med* 1910;8(8):252-3.
43. Grimes J, Smith L, Fagerberg K. Sexually Transmitted Diseases. ABC-CLIO, California 2014:724.
44. Parascandola J. From mercury to miracle drugs: syphilis therapy over the centuries. *Pharm Hist* 2009;51(1):14-23.
45. Arnold W. Studies of arsenic metabolism. *Dtsch Z Gesamte Gerichtl Med* 1967;60(3):116-34.
46. Eagle H. The relative toxicity and therapeutic activity in experimental syphilis of bismuth subsalicylate, bimosol and biliposol. *Am J Syph Gonorrhea Vener Dis* 1946;30(6):549-54.
47. Keen P. Potassium iodide in the treatment of syphilis. *Br J Vener Dis* 1953;29(3):168-74.
48. Bjekić M, Marković M, Sipetić. Clinical manifestations of primary syphilis in homosexual men. *Braz J Infect Dis* 2012;16 (4):387-9.
49. Vucetić D, Kecman G, Ilić V, et al. Blood donors' positivity for transfusion-transmissible infections: the Serbian Military Medical Academy experience. *Blood Transfus* 2015;13 (4):569-75.
50. Ensari T, Kirbas A, Ozgu-Erdinc A, et al. An eight-year retrospective analysis of antenatal screening results for syphilis: is it still cost effective? *J Infect Dev Ctries* 2015; 29 (5):981-4.
51. Kanelleas A, Stefanaki C, Stefanaki I, et al. Primary syphilis in HIV-negative patients is on the rise in Greece: epidemiological data for the period 2005-2012 from a tertiary referral center in Athens, Greece. *J Eur Acad Dermatol Venereol* 2015;29 (5): 966-8.

Медицинские и социальные аспекты заболевания сифилисом на Балканах с середины 19-го века до межвоенного периода

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В настоящем исследовании представлены некоторые аспекты заболевания сифилисом на Балканском полуострове с 19-го века до межвоенного периода. С момента появления современных балканских государств (Греции, Болгарии, Турции и Сербии) урбанизация, бедность и частые войны считаются основными факторами риска распространения сифилиса. Меры по борьбе с проституцией и заболеваниями, передаваемыми половым путем (ЗППП), развивались в двух направлениях, а именно: медицинском и законодательном. В течение этого периода в балканских странах были созданы многочисленные больницы по лечению венерических заболеваний. В соответствии с международным диагностическим подходом и терапевтическими стандартами, лабораторные исследования в этих балканских больницах включали обследование на спирохеты, реакцию Вассермана (WR), реакции осадения и исследование спинномозговой жидкости. Несмотря на строгое законодатель-

ство и принятие соответствующих законов по борьбе с незаконной проституцией, службы общественного здравоохранения были не в состоянии ограничить распространение сифилиса. В настоящем исследовании освещены такие медико-социальные параметры как нищета, невежество граждан касательно заболеваний, передаваемых половым путем, введение в заблуждение медицинскими взглядами того времени, отсутствие санитарного контроля проституции и эпидемиологических исследований. Приведенные выше параметры были основными причинами распространения сифилиса в балканских странах в 19-м и начале 20-го века. Значение этих факторов риска в качестве исторической парадигмы является диалектическим. Несоблюдение законов и нарушения в сфере общественных услуг в периоды войны или социально-экономических кризисов являются факторами риска распространения заболеваний, передаваемых половым путем.

Ключевые слова: Балканы, санитарное дело, сифилис