

Case report



SECONDARY SYPHILIS - CURRENT ASPECTS OF THE CLINICAL MANAGEMENT OF THE MULTIFACETED DISEASE. CASE REPORT

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ABSTRACT

Background: Syphilis is a chronic systemic disease caused by *Treponema pallidum*. It is called the “great imitator” due to its diverse clinical manifestations. In the classical development of acquired syphilis, three clinical stages are recognized – primary, secondary, and tertiary. The aim of our study is to outline current aspects of the clinical management of the multifaceted disease, through the presentation of a clinical case - secondary syphilis in a man.

Material/Methods: The medical documentation was used in strict compliance with the principles of research ethics for access to documentation and confidentiality of information. An analysis of regulatory documents and scientific publications on the discussed problem was applied.

Results: We present a clinical case of a 53-year-old man admitted for surgical treatment in the otolaryngology department - for four months with pain when swallowing, rashes on the palms, “sore” on the penis. Of the tests performed, only the serological results for syphilis were positive. Consultations were conducted with an infectious disease specialist and a dermatovenereologist - given the anamnestic, clinical and serological results, the surgical intervention was canceled and a diagnosis of secondary syphilis was made. Antibiotic therapy and serological diagnostics were performed. The patient remains under observation.

Conclusions: The true incidence of secondary syphilis is difficult to determine due to the variety of clinical symptoms and diagnostic difficulties. Clinical management - diagnostics, timely treatment and follow-up of this disease with many faces is a problem of interdisciplinary medical nature and great social importance.

Keywords: secondary syphilis, current aspects, clinical management, public health,

INTRODUCTION

Sexually transmitted infections (STIs), including syphilis, remain a major global public health challenge with substantial medical, social, ethical, and economic implications. According to the World Health Organization (WHO), nearly one million individuals acquire an STI every day. Effective management of STIs relies on an integrated approach built upon three essential pillars—prevention, treatment, and surveillance—each underscoring the need for sustained societal and health-system engagement with the issue [1, 2, 3].

Syphilis is a chronic, systemic infection caused by *Treponema pallidum* and is often referred to as the “great imitator” due to its remarkably diverse clinical presentations. This variability contributes to frequent diagnostic delays and misdiagnoses. Sir William Osler, regarded as the “father of modern medicine,” famously noted: “He who knows syphilis knows medicine,” highlighting the diagnostic complexity and broad clinical spectrum of this disease.

The natural course of untreated acquired syphilis is classically divided into three stages—primary, secondary, and tertiary. Primary syphilis typically presents with a chancre at the site of inoculation and regional lymphadenopathy. Secondary syphilis, which usually manifests 2 to 10 weeks after infection, results from hematogenous dissemination of the pathogen. It is characterized by non-specific systemic symptoms such as fever, malaise, and generalized lymphadenopathy, accompanied by mucocutaneous lesions of varying morphology (macular, papular, annular, or follicular). If untreated, both primary and secondary manifestations may resolve spontaneously, leading patients into a latent phase of infection [4].

After months to years of latency, approximately one-third of untreated individuals develop tertiary syphilis, presenting as gummatous disease, cardiovascular involvement, or neurosyphilis [3, 4, 5, 6, 7]. From a public health perspective, acquired syphilis is further categorized into early and late stages. Early syphilis encompasses primary, secondary, and early latent infection. Definitions vary: the European Centre for Disease Prevention and Control classifies early syphilis as infection acquired within the past 12 months, whereas the WHO extends this period to 24 months [5, 6].

Secondary syphilis displays an exceptionally broad range of clinical manifestations, and an increasing number of cases present in latent or atypical forms, contributing to ongoing diagnostic challenges [15]. Given these complexities, contemporary clinical management requires careful interdisciplinary evaluation, timely diagnosis, and appropriate follow-up.

The aim of the present study is to illustrate current aspects of the clinical management of secondary syphilis through the presentation and analysis of a representative clinical case.

MATERIALS AND METHODS

Medical documentation related to the presented clinical case was reviewed in full compliance with established principles of research ethics, ensuring appropriate authorization for access and strict protection of patient confidentiality. The analysis also incorporated relevant regulatory guidelines and contemporary scientific literature addressing the clinical, diagnostic, and public health aspects of syphilis.

RESULTS: CASE PRESENTATION

A 53-year-old man turns to an otorhinolaryngologist with the following complaints: For about two months, he has been experiencing severe pain in the throat when swallowing. He is a smoker. Colleagues thoroughly examine the patient, diagnose “Acute pharyngitis”, then prescribe appropriate anti-inflammatory and general strengthening therapy. After 14 days, a control examination was performed - the patient reports a slight improvement, but also rashes on the palms, which do not respond to the treatment prescribed by a dermatologist. He reports a lesion/sore/ on the glans of the penis. Additional anti-inflammatory therapy and a new consultation with a dermatovenerologist were prescribed. A control examination was made at the end of the third month: the patient reports ongoing pain when swallowing, “eczema” on the

palms. The appropriate therapy was prescribed, and surgical treatment and clarification of the diagnosis in hospital conditions were recommended. The patient was admitted to the otorhinolaryngology department. Objectively: pharyngoscopy: both palatine tonsils were bilaterally covered with plaques, raised relative to the surrounding mucosa, limited by a slightly hyperemic inflammatory shaft, left tonsil - palpable single, enlarged, painless, left tonsil - palpable single, enlarged, painless, cervical lymph nodes - palpable single, enlarged, painless. Of the tests performed, only the serological results for syphilis were positive /TPHA/+. Consultative examinations: with an infectious disease specialist: given the positive serology for TPHA /*Treponema pallidum* Haemagglutination Assay/, it was necessary to clarify whether this is a fresh infection or the positive result is a consequence of a past infection. He was referred for an ELISA /enzyme-linked immunosorbent assay/ test at the Medical Center and consultation with a venereologist. The patient was discharged without fever, without new complaints, given the positive serology for TPHA, the surgical intervention was canceled, and, on the recommendation of the infectious disease specialist who consulted him, he was referred for a subsequent ELISA test at the Medical Center and a consultation with a dermatovenerologist. Recommendations were given to the general practitioner for subsequent outpatient monitoring. The patient was examined by a venereologist, informed consent was provided, and after confirmed serological reactions TPHA/++++/ and ELISA/+/+, antibiotic therapy was prescribed according to the scheme. A “Lues Patient Card” was available with marital status /married/ and contact persons indicated by the patient. A control examination was performed after a month: good general condition, no complaints; serological reactions TPHA/++/, ELISA/+/+. He remains under surveillance.

DISCUSSION

In this report, we present a case of secondary syphilis not due to its rarity, but because its incidence has been steadily rising in recent years. The diagnosis, timely treatment, and adequate follow-up of this multifaceted infection remain significant interdisciplinary challenges, as clearly illustrated by the case described. Beyond the clinical complexity, secondary syphilis also carries important public health and social implications. Our findings underscore the essential role of detailed anamnesis, careful differential diagnosis, and accurate serological testing.

In the presented case, the competent evaluation by the otolaryngologists, the thorough review of the patient's

history for possible sexually transmitted infection, and the effective collaboration with the dermatovenereologist prevented unnecessary surgical intervention and the potential progression to latent or tertiary syphilis. Nonetheless, determining the true incidence of secondary syphilis remains difficult due to its broad and often atypical clinical presentation, as well as persistent diagnostic challenges. Improved diagnostic measures and effective risk-reduction strategies are therefore essential.

According to Article 12 of Regulation No. H-1 (April 7, 2025), screening for syphilis is recommended for individuals at increased risk of sexually transmitted infections, including those with risky sexual behavior, intravenous drug use, multiple sexual partners, other STIs, sexual violence survivors, victims of trafficking, and persons serving prison sentences. While the regulation frames screening as a recommendation, Articles 25 and 28 provide mandatory measures: all individuals who have been in contact with a patient with syphilis are subject to examination and prophylaxis, and patients with serological evidence of syphilis must be hospitalized depending on their clinical status [1]. These provisions reflect an institutional effort to modernize STI-related policies and reduce administrative and social barriers.

However, several unresolved issues remain. The reduction of specialized Centers for Skin and Venereal Diseases has created obstacles in maintaining epidemiological surveillance, performing dispensary follow-up, and ensuring timely access to specialized care [8, 9]. Additional barriers include incomplete or delayed epidemiological investigations, challenges in identifying and motivating contact persons, and difficulties in securing accurate national surveillance data. Taking a complete and tactful epidemiological history immediately after diagnosing syphilis is crucial; delays of even a few hours significantly reduce the likelihood of obtaining reliable information. Conducting this interview requires persistence, professionalism, and exceptional delicacy from the physician due to the sensitive socio-ethical dimensions of the topic.

Timely detection of syphilis also depends on the patient's own health literacy, awareness, and social responsibility [5]. The National Program for the Prevention and Control of HIV and STIs in Bulgaria (2021–2025) emphasizes the urgent need for effective national strategies addressing populations at highest risk [5].

Globally, the burden of syphilis has increased. The Global Burden of Disease study estimates that in 2015, over 45 million people were living with syphilis, with nearly 6 million new infections annually and more than

107,000 deaths [11, 12, 13]. In the EU/EEA, 35,391 confirmed cases were reported in 2022—an increase of 34% compared with 2021 and 41% compared with 2018, with men accounting for over 85% of cases [6, 14]. In the United States, primary and secondary syphilis reached their highest levels since the 1990s, rising from 2.1 per 100,000 (2001) to 17.6 per 100,000 (2021), with rapid acceleration between 2016 and 2022 [12, 13]. The WHO's Syphilis Elimination Interventions (SITE) model, implemented in Papua New Guinea, Peru, and Indonesia, has demonstrated notable progress—for example, symptomatic primary and secondary syphilis coverage in Papua New Guinea increased from 25–35% in 2020 to 60% in 2023 [16].

Population mobility, risky sexual behavior, and refusal to undergo preventive testing result in many cases of syphilis remaining undiagnosed and unreported [5, 15]. The diagnosis and management of secondary syphilis thus remain demanding tasks from clinical, ethical, social, and legal perspectives. Strengthening prevention, access to care, and long-term follow-up will require coordinated public health efforts, robust regulatory frameworks, and sustained institutional commitment at both national and municipal levels.

CONCLUSION

Secondary syphilis remains a diagnostic and public health challenge due to its wide clinical variability, frequent atypical presentations, and the growing number of undetected cases. Effective management of the disease requires thorough clinical evaluation, accurate serological testing, and timely initiation of therapy. Interdisciplinary collaboration, particularly among dermatovenereologists, infectious disease specialists, and other clinical departments, is essential to prevent complications and interrupt transmission. Strengthening epidemiological surveillance, improving patient education, and ensuring accessible specialized care are crucial for reducing the burden of syphilis. Sustained institutional support and clear organizational pathways are needed to guarantee effective prevention, treatment, and follow-up of sexually transmitted infections in the population.

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