

COURSE OF TUBERCULOSIS INFECTIONS IN CONSTANTA COUNTY DURING 2018-2022

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ABSTRACT

During the period studied, the incidence of tuberculosis was decreasing and this fact was due to the Covid-19 pandemic which caused authorities to focus on this public health emergency. In the last year studied, there is a slight upward trend in tuberculosis incidence rate. Patients diagnosed with tuberculosis during this period are extremely severe, contagious patients with minimal life chances.

Keywords: Tuberculosis, COVID-19, impact/effect.

Introduction.

Tuberculosis is the leading cause of death among HIV-positive people and the second leading cause of death from an infectious disease, killing 1.5 million people each year, with approximately 4,000 deaths reported globally each day (1).

Returning to the main cause of death, sexually transmitted diseases, in particular, HIV infection is closely linked to the unfavorable outcome of tuberculosis patients, in that most HIV-positive people come from a poor background (social cases, homeless, deprived of liberty) (2) or are people with a multitude of associated

comorbidities (3). These include patients with gastrointestinal, vascular, immunological, hepatitis B and C (rarely syphilis), neoplastic diseases, drug users and multidrug resistance (4-6).

During the pandemic period, the category of patients mentioned above had the most vulnerability by what characterizes them, and the SARS CoV-2 virus has further disrupted/aggravated their comorbidities (7).

Romania ranks first in the European Union in the number of new cases of tuberculosis (8). In the middle of the national ranking there is the county of Constanta, with an incidence of just over fifty new cases of tuberculosis per 100,000

inhabitants (9).

The aim of the study was to conduct an analysis of new cases, i.e. the course of TB infections registered in Constanta County, during the established period of COVID-19 pandemic

Material and method

The data was collected between 2018 and 2022 from the reports of tuberculosis cases registered in Constanta County. The study is observational and retrospective. The material was analysed using descriptive statistics analysis methods.

Results and discussion

According to the studied data, an important role in the progression of tuberculosis was the infection with the SARS-CoV-2 virus. Throughout this period, patients with tuberculosis suffered the most because the main struggle was against Covid-19 infection. Under these conditions, the management of tuberculosis has become a real challenge because tuberculosis shows similar symptoms to SARS-CoV2 infection.

The main symptoms are cough, fever or low fever, fatigue, profuse/night sweats, dyspnoea, lack of appetite and weight loss. During this period, patients found it difficult to go to a health facility for assessment, either because of fear or because of the restrictions determined by the state of emergency, the patients presented to the hospital in extremely severe stages and only when their health suddenly worsened.

We tracked the statistical data according to the reports made in the TB Dispensaries in Constanta County in the pre-pandemic and pandemic periods, namely the batch of TB patients who were registered in the period 2018-2022 (Figure 1).

In 2018, a pre-pandemic year, a total of 428 new TB cases were registered, most cases being registered in Constanta City, while Medgidia City ranked second with a total of 72 new TB cases. Of the total number of new cases, 18 cases were reported among children. According to the environment of origin, the urban environment was the leading one, with 266 new cases. The BK positive confirmation rate was of 58.2%. This

year, 34 deaths due to TB infection were reported in the county.

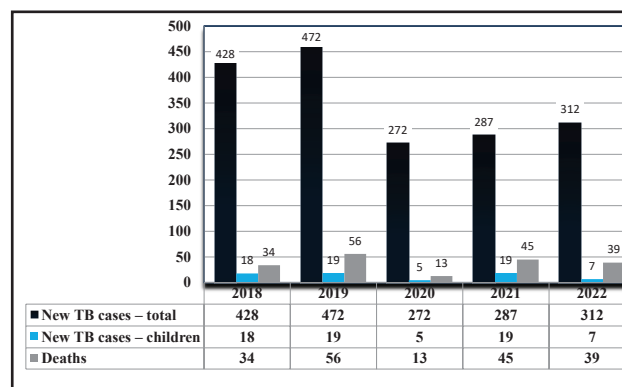


Figure 1 Tuberculosis epidemiology Constanta County

In 2019, also a pre-pandemic year, about 472 new TB cases were registered, of which 28 cases were reported in children. The BK positive confirmation in new cases registered in 2018 was of 58.2% and in 2019 it was of 68.9%. In terms of the environment of origin, all urban areas ranked first with a total of 281 new cases, and among children 19 new cases of TB were recorded, but these were registered in rural areas. During this year, a total of 56 patients were declared sick, classified in the category “gone or deceased”.

In 2020, the incidence rate of TB infection decreased dramatically to a total of 272 new TB cases registered in Constanta County, respectively to a total of 5 new TB cases in children, and the BK positive confirmation rate decreased to 30.6%. Out of the total number of registered cases, 70 new TB cases were reported in urban areas. A total of 13 deaths due to TB infection were reported.

The year 2021 remained almost at the same level as 2020, with a total of 287 confirmed new TB cases, of which 19 were children, newly registered with a BK confirmation of 62%. In terms of the environment of origin, a total of 144 new cases were registered in urban areas. During this year, 45 deaths due to TB infection were reported.

The last year studied was 2022, where a slight upward trend of new TB cases was observed, with a total of 312 new cases registered, of which 7 TB cases were reported in children and the BK confirmation rate was of 58%. Out of the total number of newly registered cases, 166

cases were reported in urban areas. A total of 39 deaths were reported in this pathology.

The late detection of TB patients is confirmed by the low proportion of presentation to medical units, but with much more serious forms.

Conclusions.

The analysis of bibliographic sources provided us important information on the major impact that the Covid-19 pandemic had on patients with TB infection. It is emphasized that the decline in TB patient detection worldwide due to the new SARS-COV-2 virus will have a devastating impact on TB mortality in the years to come.

In conclusion, the rate of TB infection detections in the period 2018-2022, at the level of Constanta County has statistically significantly decreased at the peak of the pandemic, and in the last studied period a slight increase of newly registered cases is observed.

It is important to follow the subsequent evolution of TB infections, as a particular focus has been placed on the new public health emergency.

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