

BIOLOGICAL FEATURES OF THE PATHOGEN IN NEWLY DIAGNOSED PATIENTS WITH PULMONARY TUBERCULOSIS AND PATIENTS WITH RELAPSES

*Rustamova S.A., Muazzamov B.R.
Bukhara state medical institute*

Annotation. Over the past 10 years in the Republic of Uzbekistan, thanks to large-scale anti-tuberculosis activities, there has been a stabilization and reduction in morbidity and mortality from tuberculosis. However, at present, for Uzbekistan, as well as for many countries of the world, the problem of drug-resistant tuberculosis is of great importance. In patients with relapses of the tuberculous process, bacterioexcretion was detected in 36 patients (54.5%), of which 18 (50%) MBT were detected by bacterioscopy and 24 (66.7%) by bacteriological method. As a result of the study of sensitivity to anti-tuberculosis drugs in 15 (22.7%) cases in patients with relapses, the presence of resistant MBT strains was noted. Thus, the growth rate of MTB on nutrient media, studied in the dynamics of chemotherapy, is a kind of control and prognostic indicator in determining the duration and evaluating the effectiveness of chemotherapy.

Key words: *tuberculosis, newly detected and recurrent patients, bacterioexcretion, bacterioscopy.*

Аннотация. За последние 10 лет в Республике Узбекистан, благодаря широкомасштабным противотуберкулезным мероприятиям отмечается стабилизация и снижение заболеваемости и смертности от туберкулеза. Однако в настоящее время для Узбекистана, как и для многих стран мира проблема лекарственно устойчивого туберкулеза имеет большое значение.

Таким образом, приведенные данные свидетельствуют о высокой распространенности МТБ с множественной лекарственной устойчивостью среди обследованного контингента больных и указывают на их большую эпидемиологическую опасность. Весьма важным является активное выявление больных с множественной лекарственной устойчивостью в группах риска, особенно среди бездомных, беженцев, а также лиц, находившихся в непосредственном контакте с больными, выделяющими полирезистентные МТБ. Назначаемое таким больным лечение должно строго контролироваться.

Ключевые слова: *туберкулёз, впервые выявленные и рецидивные больные, бактериовыделение, бактериоскопия.*

The purpose of the study: to study the biological characteristics of the pathogen in newly diagnosed patients and patients with relapses of pulmonary tuberculosis.

Materials: 160 newly diagnosed patients and 66 patients with relapses aged 18 to 60 years were under observation.

Results: Among newly diagnosed patients, men aged 21-40 years (50.5%) prevailed, among women - younger ones - 21-30 years (36.4%).

The group of patients with relapses was dominated by men aged 31-50 years (64.5%), women aged 17-30 (23.1%) and older than 51 years (33.7%).

The distribution by clinical forms of the disease among newly diagnosed patients with pulmonary tuberculosis was as follows: more than a third were diagnosed with infiltrative forms of the process - 67.5%, then in terms of frequency of occurrence - focal pulmonary tuberculosis - 13.7%, disseminated - in 6.9% and fibrous-cavernous pulmonary tuberculosis (FCT) - in 3.75% of patients. Other forms of tuberculosis (tuberculous pleurisy, cavernous, tuberculoma, caseous pneumonia) were less common - in 7.9% of cases.

When distributing by clinical forms of the disease among patients with relapse of pulmonary tuberculosis, a sharp increase in patients with fibrous-cavernous pulmonary tuberculosis - 36.6%, infiltrative tuberculosis - 43.9% attracts attention. Focal, cavernous and disseminated pulmonary tuberculosis occurred in 4.5% of cases, cirrhotic and tuberculoma in 3% of cases.

Bacterioscopic and cultural studies were carried out at the time of admission to the hospital, and then periodically during treatment. The frequency of the study ranged from 1 to 12 times.

In epidemiological terms, the most dangerous were 56 (59%) newly diagnosed patients in whom MBT was detected by bacterioscopy. In 79 (83.2%) patients MBT was detected by bacteriological method. The total number of bacterial excretors among newly diagnosed patients was 95 (59.4%) patients.

In patients with relapses of the tuberculous process, bacterioexcretion was detected in 36 patients (54.5%), of which 18 (50%) MBT were detected by bacterioscopy and 24 (66.7%) by bacteriological method.

An important point of the present study was the comparison of the terms of growth of MBT colonies during a cultural study, isolated from newly diagnosed and in patients with recurrent tuberculosis. According to our data, the newly diagnosed patients were characterized by a relatively rapid growth of MBT. In 72 (80%) samples, lush - eignonic growth of colonies was noted on 10-14 days of sowing, and in 18 (20%) samples, the growth of colonies was later - on 25-30 days and had a poor character.

We found that in 12% of cases of tuberculosis recurrence, MBT colonies did not give visible growth until 20-25 days, and in 62 (88.6%) cases, colony growth was observed from 30-35 days of sowing, which indicates the presence of slow-growing MBT. The growth of MBT culture in patients with recurrent tuberculosis lagged behind on average by 2 weeks than in newly diagnosed patients.

Resistance to anti-tuberculosis drugs was determined based on the results of bacteriological studies conducted by express methods [Hain test (Genotype INA and Genotype RMP), Gene Xpert/RIF]. As a result of the study of sensitivity to anti-tuberculosis drugs in 15 (22.7%) cases in patients with relapses, the presence of resistant MBT strains was noted.

Conclusion. A pronounced decrease in the massiveness of bacterial excretion after 7-10 days of combined anti-tuberculosis chemotherapy and a sharp slowdown in its growth rate most likely indicates, first of all, the death of fast-growing MBT strains. Under the influence of chemotherapy, the rapidly growing part of the mycobacterial population loses the ability to grow on nutrient media. The long-term growth of a quantitatively meager microbial population indicates the presence of slow-growing strains that retain their viability.

Thus, the growth rate of MTB on nutrient media, studied in the dynamics of chemotherapy, is a kind of control and prognostic indicator in determining the duration and evaluating the effectiveness of chemotherapy.

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