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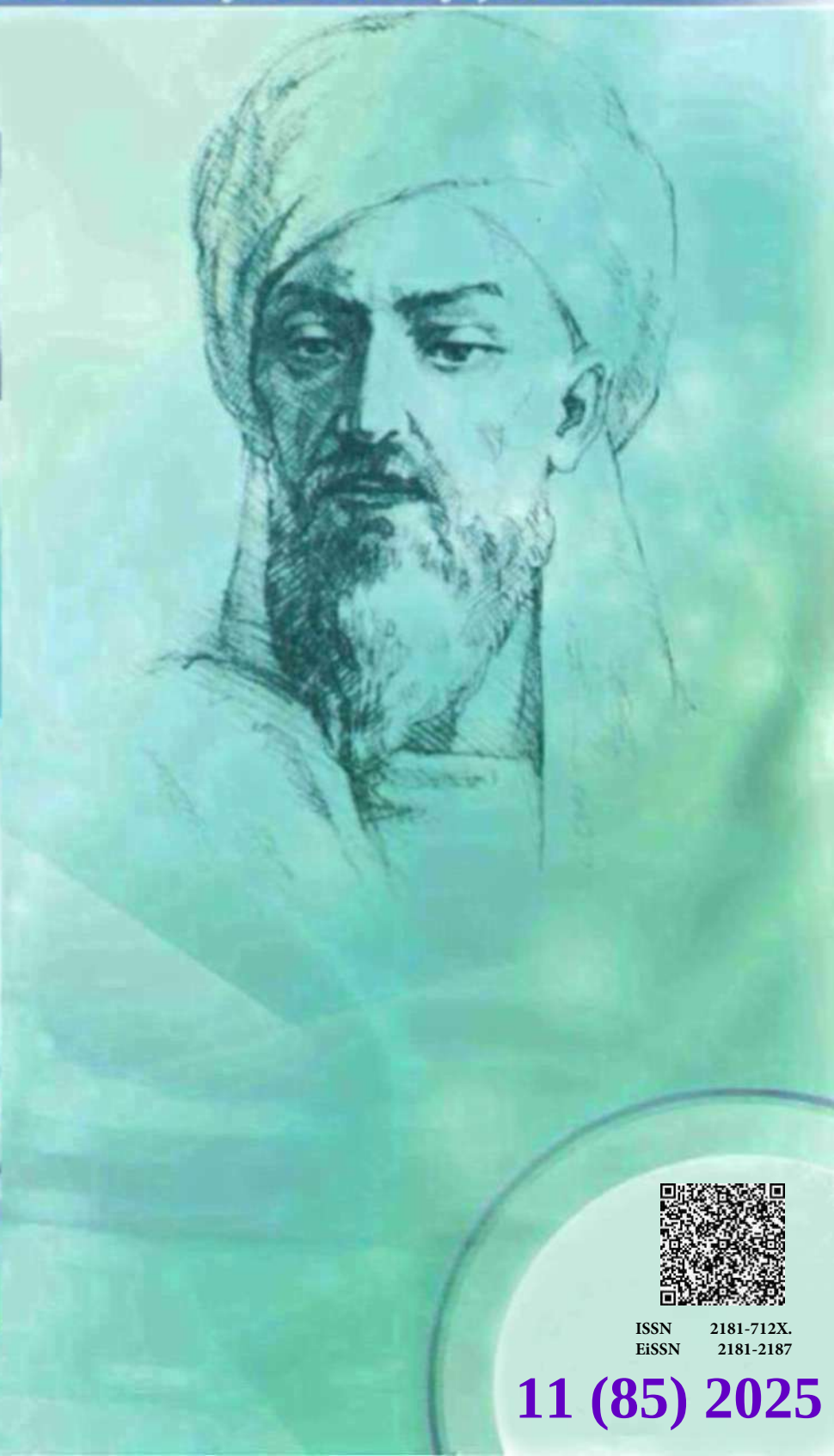


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ТИББИЁТДА ЯНГИ КУН НОВЫЙ ДЕНЬ В МЕДИЦИНЕ NEW DAY IN MEDICINE

*Илмий-рефератив, маънавий-маърифий журнал
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ANALYSIS OF HOSPITALIZATION DURATION IN TUBERCULOSIS PATIENTS DEPENDING ON PRE-HOSPITAL TREATMENT

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✓ Resume

The objective of this study was to evaluate the time interval between the onset of tuberculosis symptoms and patient hospitalization, as well as to determine the factors affecting its duration. The analysis revealed that individuals who underwent pre-hospital treatment were admitted to medical facilities notably later — on average after 3.9 ± 5.98 months — compared with those who had not received any prior therapy (0.58 ± 0.78 months; $p = 0.001$). Moreover, no statistically significant differences were detected in relation to sex or age. Consequently, the findings indicate that pre-hospital treatment serves as a major factor contributing to delayed hospitalization, thereby emphasizing the importance of enhancing early diagnostic procedures and patient referral mechanisms within tuberculosis care systems.

Keywords: tuberculosis, symptoms, pre-hospital period.

АНАЛИЗ СРОКОВ ГОСПИТАЛИЗАЦИИ БОЛЬНЫХ ТУБЕРКУЛЁЗОМ В ЗАВИСИМОСТИ ОТ ДОГОСПИТАЛЬНОГО ЛЕЧЕНИЯ

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✓ Резюме

Целью исследования была оценка временного интервала между появлением симптомов туберкулёза и госпитализацией пациента, а также определение факторов, влияющих на его продолжительность. Анализ показал, что пациенты, получавшие догоспитальное лечение, поступали в медицинские учреждения значительно позже — в среднем через $3,9 \pm 5,98$ месяца — по сравнению с пациентами, не получавшими предварительной терапии ($0,58 \pm 0,78$ месяца; $p = 0,001$). Кроме того, статистически значимых различий в зависимости от пола и возраста выявлено не было. Таким образом, полученные данные свидетельствуют о том, что догоспитальное лечение является ключевым фактором, способствующим задержке госпитализации, что подчёркивает необходимость совершенствования механизмов ранней диагностики и маршрутизации пациентов в системе противотуберкулёзной помощи.

Ключевые слова: туберкулёз, симптомы, догоспитальный период.

ТУБЕРКУЛЁЗ БЕМОРАЛРНИНГ СТАЦИОНАРГА ЁТҚИЗИШ МУДДАТИГА ДОГОСПИТАЛЬ ДАВОЛАШ ТАЪСИРИНИНГ ТАҲЛИЛИ

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✓ Резюме

Тадқиқотнинг мақсади туберкулёз аломатлари пайдо бўлган вақтдан беморнинг стационарга ётқизилгунга қадар ўтган муддатни баҳолаш ва ушбу даврга таъсир этувчи омилларни аниқлашдан иборат эди. Таҳлил натижаларига кўра, догоспиталь даволаш олган беморлар тиббий муассасаларга анча кеч — ўртача $3,9 \pm 5,98$ ойдан сўнг — мурожаат қилган. Бу кўрсаткич, олдиндан ҳеч қандай даволаш олмаган беморлар билан таққосланганда анча паст бўлиб ($0,58 \pm 0,78$ ой; $p = 0,001$), догоспиталь даволаш кечикишининг асосий сабаби эканини кўрсатади. Шунингдек, ёш ва жинсга кўра статистик аҳамиятли фарқлар аниқланмади.

Олинган натижалар, туберкулёз ёқасида эрта таххислаш ва беморларни ўз вақтида йўналтириш механизмларини такомиллаштириш зарурлигини таъкидлайди.

Калит сўзлар: туберкулёз, аломатлар, догоспиталь даври.

Relevance

Tuberculosis remains one of the most pressing public health problems both globally and in the Republic of Uzbekistan, despite advances in diagnosis and treatment. Early detection of the disease and timely hospitalization are key factors influencing treatment efficacy and patient prognosis. However, in clinical practice, delays in seeking specialized care are frequently observed, which may be related to the characteristics of pre-hospital treatment, self-diagnosis, or underestimation of symptoms by patients.

The objective of the study is to evaluate the time interval between the onset of tuberculosis and patient hospitalization, as well as to determine the factors that influence its duration.

Materials and methods

The study is based on data from 123 patients who received inpatient treatment in phthisiatric and pulmonology centers.

Exclusion criteria:

- Patients who were not prescribed medications for the treatment of MDR-TB.
- Patients with mono-, poly-resistant, or XDR-TB.

Table 1

Distribution of Patients by Sex						
Study Groups	Men (n=80)		Women (n=43)		Total (n=123)	
	abs	M (%)	abs	M (%)	abs	M (%)
Main (n=63)	39	61,9	24	38,1	63	51,2
Control (n=60)	41	68,3	19	31,7	60	48,8
χ^2 between sexes	P=0,45					
Total	80	65	43	35	123	100

Table 1 shows the sex distribution of patients in the study. In the main group of 63 participants, 39 (61,9%) were male and 24 (38,1%) were female. The control group consisted of 60 patients, including 41 men (68,3%) and 19 women (31,7%).

In total, the study population comprised 123 patients, of whom 80 (65%) were male and 43 (35%) were female.

No statistically significant differences in sex distribution were found between the groups ($P = 0,45$).

Table 2

Mean Age of Patients (Between Groups)						
Study Groups	Main (n=63)		Control (n=60)		Total (n=123)	
	M	m	M	m	M	m
Age (years)	54,86	13,54	54,38	11,8	54,62	10,2
Mann-Whitney (U)	P=0,62					

An analysis of patients' age demonstrated that the average age in the main group amounted to 54.86 ± 13.54 years, whereas in the control group it was 54.38 ± 11.8 years, indicating comparable age characteristics between the two groups. The overall mean age across all participants was 54.62 ± 10.2 years. No statistically significant differences in age were observed between the groups ($P = 0,62$).

Results and discussion

Patient Categories – Patients were divided into “Primary” and “Secondary” categories. Primary patients are those who are seeking medical care for a specific condition for the first time or are initiating treatment based on an initial diagnosis. Secondary patients are those who have previously received medical care or are continuing treatment due to disease recurrence or ongoing conditions.

Table 3

Time from Disease Onset to Hospitalization (by Sex)

Time (months)	Men (n=80)		Women (n=43)		Mann–Whitney (U)	Total (n=123)	
	M	m	M	m		M	m
Patients with pre-hospital treatment (n=73)	3,49	4,81	4,44	7,26	P=0,56	3,9	5,98
Patients without pre-hospital treatment (n=50)	0,67	0,84	0,27	0,47	P=0,16	0,58	0,78
Mann–Whitney (U)	P=0,001		P=0,001		Difference between sexes P=0,5	P=0,001	
Mean period	2,11	3,75	3,37	6,5		2,55	4,9

Patients who had received pre-hospital treatment were admitted to the hospital on average $3,9 \pm 5,98$ months after the onset of tuberculosis symptoms, with a range of 1 to 30 months. The mean time to hospitalization was 3,49 months for men and 4,44 months for women, with no statistically significant difference ($p = 0,56$).

In contrast, patients who had not received pre-hospital therapy were hospitalized much sooner, with an average of $0,58 \pm 0,78$ months (ranging from 1 to 3 months), also showing no significant difference between genders (men – 0,67 months; women – 0,27 months; $p = 0,16$).

A comparable analysis was conducted across the study groups.

Table 4

Time from Disease Onset to Hospitalization

Time (months)	Main Group (n=63)		Control Group (n=60)		Mann–Whitney (U)
	M	m	M	m	
Patients with pre-hospital treatment (n=73)	3,58	5,95	4,08	6,05	P=0,95
Patients without pre-hospital treatment (n=50)	0,8	1,3	0,56	0,72	P=0,37
Mann–Whitney (U)	P=0,001		P=0,001		P=0,08
Mean period	3,13	5,55	2,36	4,68	

In the main group of patients who received pre-hospital therapy ($n = 73$), the average time from disease onset to hospitalization was $3,58 \pm 5,95$ months, compared to $4,08 \pm 6,05$ months in the control group, with no statistically significant difference ($P = 0,95$). Among patients who did not undergo pre-hospital therapy ($n = 50$), the average duration from disease onset to hospitalization was $0,8 \pm 1,3$ months in the main group and $0,56 \pm 0,72$ months in the control group, which likewise did not demonstrate a statistically significant difference ($p = 0,37$).

In general, the mean period before hospitalization was $3,13 \pm 5,55$ months in the main group and $2,36 \pm 4,68$ months in the control group ($p = 0,08$), indicating a similar trend across both groups. However, a significant difference was observed when the data were analyzed according to pre-hospital therapy status ($P = 0,001$).

Table 5

Time from Disease Onset to Hospitalization
(Between Primary and Secondary Patients)

Time (months)	Primary (n=74)		Secondary (n=49)		Mann–Whitney (U)
	M	m	M	m	
Patients with pre-hospital treatment (n=73)	1,98	3,26	1,87	1,85	P=0,51
Patients without pre-hospital treatment (n=50)	1,25	1,44	2,32	4,63	P=0,17
Mann–Whitney (U)	P=0,001		P=0,001		Between primary and secondary P=0,001
Mean period	3,53	6,03	1,08	1,44	

This table presents the analysis of the time from disease onset to hospitalization among primary (n = 74) and secondary (n = 49) patients, measured in months.

Among patients who received pre-hospital therapy (n = 73), the mean time to hospitalization was $1,98 \pm 3,26$ months for primary patients and $1,87 \pm 1,85$ months for secondary patients, with no statistically significant difference ($P = 0,51$). For patients without pre-hospital therapy (n = 50), the mean time was $1,25 \pm 1,44$ months in primary patients and $2,32 \pm 4,63$ months in secondary patients ($P = 0,17$).

Overall, the analysis showed significant differences, with mean times of $3,53 \pm 6,03$ months for primary patients and $1,08 \pm 1,44$ months for secondary patients ($P = 0,001$).

Conclusions

The study results indicate that pre-hospital therapy is associated with a significant increase in the time to hospitalization among tuberculosis patients. This delay may result from self-medication, underestimation of symptoms, temporary symptom relief, or late recognition of the disease at the primary healthcare level.

The lack of statistically significant differences in age and sex suggests that the delay in seeking medical care is primarily influenced by organizational and behavioral factors. Similar patterns have been reported in the literature, underscoring the importance of enhancing early diagnosis and patient referral systems.

In general, pre-hospital treatment seems to lead to delays in seeking specialized medical care, which can adversely affect treatment outcomes. This emphasizes the importance of improving early diagnosis and strengthening patient referral systems for individuals with tuberculosis.

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