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Sociodemographic Characteristics of Cases Followed at the Adıyaman Central Tuberculosis Dispensary

Adıyaman Merkez Verem Savaş Dispanserinde Takip Edilen Olguların Sosyodemografik Özellikleri

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ABSTRACT

Objective: The aim of this study is to identify the sociodemographic characteristics of tuberculosis (TB) patients in Adıyaman Province.
Materials and Methods: This is a retrospective study. The study includes 205 people. The data were analyzed using a statistical software package. Means were presented together with standard deviations. The study was initiated after obtaining approval from the ethics committee and the necessary institutional permissions.
Results: The mean age of participants was 42.29±22.27 years, and the average household size was 6.22±3.32. More than half of the cases were male. Tobacco use was the most frequently observed risk factor. Regarding the sites of involvement, pulmonary TB was the most common. Among extrapulmonary TB cases, extrathoracic lymphadenopathy was the most frequent. The most common symptoms were fatigue, cough, and weight loss.
Conclusions: TB is more commonly seen in males. Tobacco use is the most prevalent risk factor. Among extrapulmonary involvements, lymph node involvement is the most frequently observed.
Keywords: Tuberculosis, lung, infectious disease

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ÖZET

Amaç: Araştırmanın amacı Adıyaman İlinde tüberküloz hastalarının sosyodemografik özelliklerinin ortaya çıkarılmasıdır.
Materyal ve Metot: Araştırma retrospektif tipte bir çalışmadır. Çalışma 205 kişiyi kapsamaktadır. Verilerin değerlendirilmesi istatistiksel paket program kullanılmıştır. Ortalamalar standart sapma ile verilmiştir. Etik kurul ve gerekli izinler alındıktan sonra çalışma başlamıştır.
Bulgular: Katılımcıların yaş ortalaması 42.29±22.27 olup ortalama hane halkı kişi sayısı 6.22±3.32'di. Olguların yarısından fazlası erkekti. Tütün kullanımı en sık görülen risk faktörüydü. Tutulum bölgeleri değerlendirildiğinde en sık akciğer tutulumu izlendi. En sık akciğer dışı tutulum ekstratorasik lap tutulumuydu. Halsizlik, öksürük ve kilo kaybı en sık görülen semptomlardı.
Sonuç: Tbc erkeklerde daha sık görülmektedir. Tütün kullanımı en sık görülen risk faktörüdür. Akciğer dışı tutulum olarak en sık lenf tutulumu görülmektedir.
Anahtar Kelimeler: Tüberküloz, akciğer, bulaşıcı hastalık

INTRODUCTION

Tuberculosis (TB) is an infectious disease caused by Mycobacterium tuberculosis, transmitted from person to person through the air via coughing. It is a major cause of morbidity and is among the top 10 causes of death worldwide. TB is also the leading cause of death from a single infectious agent, making it a significant public health problem.

Globally, approximately 2 billion people are infected with the TB bacillus. Each year, 10 million new cases are reported, and 3 million people die from TB. Despite the success of global control programs, TB remains one of the most important diseases. In recent years, population growth, nutritional difficulties, and the increasing prevalence of immunosuppressive diseases have further exacerbated the TB burden.

TB can occur at any age. Risk factors include smoking, malnutrition, alcohol consumption, HIV infection, homelessness, injection drug use, travel to high TB incidence areas, and residence in nursing homes or prisons. Drug-resistant TB may emerge due to improper use of medications, treatment interruption, or incorrect treatment regimens. The development of drug-resistant TB can severely limit therapeutic options.

In 2018, 10 million people were diagnosed with TB, including 1.1 million children. This corresponds to 133 cases per 100,000 people globally. While the WHO's End TB Strategy aimed to reduce TB-related deaths by 35% by 2035, only an 11% reduction was achieved between 2015 and 2018.

In the WHO European Region, which includes Turkey, the incidence of TB has been reported as 30 per 100,000 population. In Turkey, TB incidence was approximately 30 per 100,000 in 1960 when case registration began, peaked in 1962 surpassing approximately 180 per 100,000, and subsequently decreased, reaching 29.4 per 100,000 in 2005 and 14.7 per 100,000 in 2017.

MATERIALS AND METHODS

Research Design

This retrospective study was conducted at the only Tuberculosis Dispensary in the central district of Adıyaman Province. The study population consisted of all patients followed at the Adıyaman Tuberculosis Dispensary between October 1, 2016, and October 1, 2020. No sample group was selected; all admissions during this period were included in the analysis. The study included 205 people.

The data obtained from structured data collection forms were analyzed using a statistical software package (SPSS 23.00). Permission was obtained from the Adıyaman University Non-Interventional Clinical Research Ethics Committee (document dated 20.10.2020 and numbered 9-23) and the Adıyaman Provincial Health Directorate. Descriptive statistical methods were employed for data analysis. Means and standard deviations were presented accordingly.

RESULTS

The mean age of the participants was 42.29±22.27 years, and the average household size was 6.22±3.32. Among the participants, 51.2% were male, 32.8% were primary school graduates, 32.4% were housewives, 85.9% resided in urban areas, and 95.5% had social security (Table 1). Tobacco use was the most frequently observed risk factor, reported in 53.27% of cases (Figure 1).

Figure 1: Some risk factors among the cases

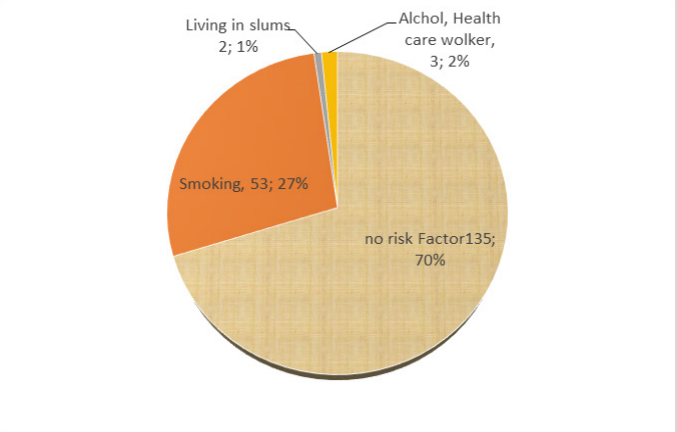

Table 1. Some sociodemographic characteristics of the cases

Gender	**n**	**%**
Male	105	51.2
Female	100	48.8
Educational Levels (n=177)		
No formal education	44	24.9
Primary school graduate	58	32.8
Middle school graduate	27	15.3
High school graduate	38	21.5
University degree or higher	10	0.5
Occupation		
Unemployed	46	22.0
Self-employed	16	7.9
Civil servant / Public servant	8	3.9
Housewife	66	32.4
Worker / Laborer	13	6.4
Retired	18	8.8
Student	30	14.7
Child	8	3.9
Place of residence		
City center	176	85.9
Village	29	14.1
Social security status (n=198)		
Yes	189	95.5
No	9	4.5

When the sites of involvement were evaluated, pulmonary involvement was the most commonly observed (48.8%). The most frequent extrapulmonary involvement was extrathoracic lymphadenopathy (19.0%). Among the patients, the most commonly reported symptoms were fatigue in 130 cases (63.4%), cough in 122 cases (59.5%), eight loss in 94 cases (45.9%), wand night sweats in 90 cases (43.9%) (Table 2).

The most common site of involvement was the lungs (48.8%), followed by extrathoracic lymph node involvement (19%).

In terms of symptoms, cough (59.5%) and fatigue (63.4%) were the most frequently observed.

Table 2. Frequency of organ involvement and observed symptoms

İnvolved Organs	**n**	**%**
Lung	100	48.8
Pleural TB	16	7.8
Cutaneous TB	4	2.0
Genitourinary TB	5	2.4
Gastrointestinal TB	12	5.8
Intrathoracic LAP	9	4.4
Extrathoracic LAP	39	19.0
Central nervous system	7	3.4
Peritoneal TB	4	2.0
Bone and joint TB	7	3.4
Soft tissue TB	2	1.0
Symtoms		
Fatigue	130	63.4
Cough	122	59.5
Sputum	66	37.2
Hemoptysis	31	15.1
Chest pain	22	10.7
Shortness of breath	18	8.8
Fever	3	1.5
Night sweats	90	43.9
Loss of appetite	27	13.2
Weight loss	94	45.9

DISCUSSION

In our study, 51.2% of the cases were male. This finding is consistent with most other studies in the literature [5–7], although there are also studies reporting a higher frequency in females [8]. The predominance of males may be due to men spending more time outside the home for occupational and social reasons, which increases exposure to TB.

The mean age of the patients was 42.29±22.27 years. Similar age distributions have been reported in other studies [5,9].

A total of 44 patients (24.9%) were illiterate. The proportion of illiterate individuals in similar studies conducted in Turkey is also notable [6,9]. Higher levels of awareness about TB prevention methods among literate individuals highlight the multidimensional nature of the fight against TB.

In our study, although 70% of participants did not have any known risk factors for TB, tobacco use (27%) was the most frequently reported. Both TB and tobacco use are independent threats to public health. When combined, they can exert a greater detrimental effect on health [10]. It has been shown that smoking cessation rates increase during the course of illness [11]. Other identified risk factors included being a healthcare worker, alcohol use, and residing in slum areas. The coexistence of TB and tobacco use causes more harm than either factor alone [12]. Tobacco use also increases the risk of developing TB [13]. In several studies, tobacco use was the most commonly observed risk factor. The 2021 TB Control Report of Turkey also identified tobacco use as the most frequent risk factor [14].

In our study, fatigue was the most commonly reported symptom, which is a nonspecific finding seen in many diseases [15]. Other frequently reported symptoms included sputum production and night sweats. Similar findings have been reported in previous studies, with dry cough, sputum, and night sweats being the most common symptoms [6,8].

Pulmonary involvement was observed in more than half of the cases. Other studies have also shown that pulmonary involvement is more common than extrapulmonary involvement [6].

CONCLUSION

Our study shows that TB is more frequently observed in males and middle-aged individuals. Tobacco use was the most common risk factor identified among the cases.

Ethics Committee Approval: Ethical approval was obtained from the Local Non-Interventional Clinical Research Ethics Committee (Adiyaman University 2020-9/23).

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Conflict of Interest: The authors declare that there is no personal or financial conflict of interest within the scope of the study.

Author Contributions: Idea/Concept: Ferit KAYA; Design: Ferit KAYA, Gülnur TARHAN Supervision/Consulting: Gülnur TARHAN; Data Collection and/or Processing: Hülya DOĞAN TİRYAKİ, Zülal KIZILGÜNEŞ; Analysis and/or Interpretation: Ferit KAYA; Literature Review: Zülal KIZILGÜNEŞ; Writing of the Article: Ferit KAYA; Critical Review: Ferit KAYA, Gülnur TARHAN. Resources and Funding:No financial support was received for this study

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