LETTER TO THE EDITOR

The Effect of Smoking on the Course of Tuberculosis

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Dear Editor,

We read the paper entitled “The Relation of Smoking with Treatment Success in Cases with Multi Drug-Resistant Tuberculosis” written by Pazarlı et al., which was published in the Turkish Thoracic Journal 2013;14(3):93-97, with great interest [1]. Researchers have stated that there is adequate evidence about the effects of smoking in active tuberculosis (TB) cases. In this respect, we wanted to share the characteristics of two studies performed in our clinic including active tuberculosis case, as the paper by Pazarlı et al did not include this information, which may be important in respect of tuberculosis data of Turkey [2,3].

Tuberculosis is a disease with a long treatment period and a high treatment cost. Smoking poses an important health and economic problem in Turkey as well as in many countries, both by itself and due to numerous chronic diseases it causes. Smoking is not only a risk factor for tuberculosis, but also may cause a more severe form of tuberculosis. Cigarette smoking enhances the risk of tuberculosis development, and leads to more frequent smear positive results for acid fast bacilli (AFB), increased contamination, and observation of more frequent cavities radiologically [4,5]. Although there is no definite answer as to whether smoking influences mortality in tuberculosis cases, it has been concluded that it has an effect in the development of tuberculosis infection and active tuberculosis [4-6]. Along with the increasing number of publications on the association of smoking with tuberculosis, the International Union against Tuberculosis and Lung Disease (the Union) and the World Health Organization attracted attention on this subject and brought smoking cessation methods in the management of tuberculosis patients into question [7-10]. In the two studies mentioned above, the effect of smoking on disease course in cases diagnosed with active tuberculosis was evaluated.

In their study entitled “the Effect of Smoking on the Course of Tuberculosis”, Tuncer et al.[2] divided 226 cases diagnosed with pulmonary tuberculosis into two groups according to their smoking status [Group I, smokers (n=145, F/M: 22/123, mean age 40±13 years) and Group II, non-smokers (n=81, F/M: 24/57, mean age 36±15 years)] and evaluated the effects of cigarette smoking of baseline smear positivity, radiological features, sputum conversion during follow-up, and duration of treatment. The rate on cases diagnosed based on AFB smear positivity was 92.7% in Group I and 77.8% in Group II. The rate of detecting cavities on chest x-rays was 29.4% in Group I and 30.1% in Group II. Radiological extent of tuberculosis and the presence of cavities on chest X-rays were similar in both groups (p>0.05). In comparison of the two groups, smear positive cases were significantly higher in the smoking group (p=0.001). Conclusively, the researchers highlighted the importance of higher smear-positivity in terms of tuberculosis contamination in smokers with tuberculosis versus non-smokers with tuberculosis.

In a similar study presented by Afşar et al.[3] in the Congress of Turkish Respiratory Society in 2010, 101 cases diagnosed with pulmonary TB were divided into two groups according to smoking status and the effect of smoking on symptoms, baseline smear positivity, radiological features, radiological localization of tuberculosis, side effects during treatment, treatment outcomes, and sputum conversion was investigated (Group 1, Smokers: n=50, F/M: 3/47, mean age 42.4±12.9 years, mean pack years of cigarette smoking: 37.66; Group 2 Non-smokers, n=51, F/M: 13/38, mean age 32.7±17.5 years). No significant difference was found between the groups in terms of symptoms, baseline smear positivity, radiological features, radiological site of tuberculosis, and treatment outcomes (p>0.05). There were 4 resistant TB cases in the
smoker group (p>0.05). Although the number of cases with prolonged sputum conversion time that was extended to the 3rd and 4th months was higher in Group 1, the difference between the groups was not statistically significant (Group 1: 9 cases, Group 2: 1 case) (p>0.05). Considering the results of this study, although smoking appears not to influence the course of tuberculosis, the researchers thought that the small number of cases included in the study, as well as lack of assessing second-hand smoking status of the cases, might have influenced the results. In Turkey, people are exposed to second-hand smoke not only in their houses but also in various other places. Individuals may be involuntarily exposed to higher cigarette smoke than a smoker [11].

In conclusion; today, smoking and tuberculosis are the two major public health problems in the world. The association of tuberculosis and smoking poses a greater risk for public health than the individual risk of either. Therefore, we think that incorporating smoking cessation treatment in the management of tuberculosis patients would be beneficial.

REFERENCES