

## SCREENING OF ASBESTOS-RELATED LUNG DISEASES IN AFŞİN, BÜYÜKTATLAR

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Exposure to environmental asbestos is a common health problem in Turkey, which might result in benign and malign diseases in lung and pleura. It has been pointed out that there is an increase in the rate of pleural and lung cancer especially in Cappadocia, Eskişehir and Diyarbakır districts due to asbestos exposure.

**Purpose:** To detect exposure to asbestos and the asbestos-related mesothelioma disease via microfilm scanning and soil analysis in Büyüktatlar village, where dubious death incidences have been observed.

**Material Method:** In August 2005, a screening study of asbestos-related pathologies was conducted in Büyüktatlar, Afşin. The subjects filled a questionnaire about their family background and lung complaints, and had their lungs microfilmed. All men and women above the age of 35 in the village were invited to the health care center for scanning purpose. 535 out of or 40.8 % of 1312 people already registered in the health care center, responded to the invitation. Three pulmonary disease experts assessed their microfilms. Besides, soil samples were taken from seven different areas of the village. These samples were analyzed by the mineralogical-petrographical method in MTA laboratories in Ankara.

**Findings:** As a result of microfilm assessments, it was detected that 67 patients out of 535 (12.5 %) had bilateral pleural plaque, bilateral pleural calcification and bilateral interstitial pattern. 34 patients (50.7 %) were sent to local hospitals to undergo tomography. Changes observed in lung radiography, which might be caused by factors other than asbestos exposure, were detected in 69 patients. Changes observed in the lung radiography, which were assessed as pathological, are reflected in Table 1.

In 4 out of 7 soil samples taken from different areas of the village, asbestos (zeolite and serpentine) was detected.

**Table 1: Distribution of changes observed in lung radiography, which might be caused by factors other than asbestos exposure**

Pathology detected	Number	%
Emphysema	42	60.8
Increase in dry powder inhaler	9	13.0
Large mediastinum	8	11.5
Increase in Ret. Density	1	1.4
Increase in ventilation	4	5.7
TBC sequelae in right apex (fibrosis)	3	4.3
Scoliosis	2	3.8
Total	69	100,0

**Result:** In the event that asbestos-specific pathologies are detected in the patients by tomography, it will be essential to prevent contact of the village dwellers with the suspected areas of soil.