

ASBESTOS RELATED PATHOLOGIES AMONG RESIDENT POPULATION ON CALABRIA-LUCANIA BORDER WITH ENVIRONMENTAL AND OCCUPATIONAL EXPOSURE TO TREMOLITE

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Along with the mapping of areas on the Calabria-Lucania line presenting outcrops of serpentinite and metabasites rocks, containing tremolite, a group of geologists from the CNR of Tito Scalo (PZ) has undertaken an environmental monitoring of tremolite airborne fibres, showing an exposure up to 5 ff/l. A multidisciplinary workgroup in a Consensus Conference has scheduled an epidemiological-health surveillance on the involved population aiming to assess the prevalence of asbestos related diseases due to environmental and occupational asbestos exposure. The resident population of Lauria and Castelluccio Superiore cities was recruited for the current study on a voluntary basis. The health surveillance protocol included an occupational medicine physical examination along with lung function tests for each resident person above 18 years old. Moreover, people living in the area from more than 20 years performed chest X-ray in double projection with ILO-BIT reading in double blind test along with a visit of a pulmonologist. 699 residents voluntarily joined the health surveillance protocol. Results show people affected with asbestos related pulmonary and pleural pathologies, both benign and malignant. Among these, it has to be highlighted the presence of 2 malignant pleural mesothelioma and 1 lung cancer cases. Consistently with data coming from the literature, the frequency of benign and malignant pleural pathologies is related to the environmental asbestos exposure, which lasts since their birth. Soil movements in construction and agriculture sectors determine a risk of tremolite occupational exposure which can be correlated with types of pulmonary diseases discovered.

Keywords: natural occurring asbestos, asbestos related pathologies, environmental and occupational exposure