CORRESPONDENCE

An update of cancer mortality among chrysotile asbestos miners in Balangero, northern Italy

Sir,—Following the update by Piolatto *et al* on cancer mortality among chrysotile miners in Balangero, northern Italy (1990;47:810–4), we report on a further case of pleural mesothelioma in a man who worked at Balangero.

NSR, born in 1921, had no major disease until 68 years of age, except for an episode of dyspnoea and right sided chest pain when he was 38; both cleared spontaneously. In August 1989, because of rapidly increasing dyspnoea without chest pain, he was admitted to a chest hospital (San Luigi Gonzaga, Orbassano, Turin). After the evacuation of copious haemorrhagic fluid, right parietobasal pleural opacities were evident on chest *x* ray film; a sample of pleural fluid showed large atypical cells. A thoracoscopy was performed revealing many mamillary whitish masses on the diaphragmatic and visceral right pleura; a small sample from one of the diaphragmatic masses was taken for histological examination and showed scanty strings of atypical cells of mesothelial appearance inside hyaline fibrous strands; a diagnosis of pleural mesothelioma was considered. Later, an ascitic effusion appeared and a sample of this fluid also showed atypical cells. The patient died on 2 May 1990. Unfortunately, no necropsy was carried out.

Recently, one of us carried out a revision of the only available biopsy and at immunocytochemical examination the atypical cells were positive for vimentine and cytokeratin and showed a membrane positivity for EMA, confirming the mesothelial nature of the lesion.

The occupational history was obtained with the help of the patient's work documents. NSR worked at Balangero from 4 July 1936 to 26 April 1944 with a gap of about 15 months (1941–1942) for military service. During the first two and a half years he was employed in supplying drinking water to the miners. During the next two years he was employed partly in sweeping gravel and dust after each blast, partly (for about six months) in auxiliary jobs building a new part of the mill. Finally, for two years, despite the title of "rock driller", he worked not only quarrying the mineral with a dry hammering pneumatic drill, but also inside the mill, riddling the milled mineral to separate fibres from dusts, and mixing fibres of different lengths chosen among preselected batches. He had noted that all his working areas were extremely dusty, but the last was the worst.

Afterwards he worked, from 1944 to 1945, as a farmer, cultivating hay and attending to cows and horses, from 1945 to 1981 for five and a half years as a street sweeper, then as a white collar worker.

NSR lived from birth to 1944 in a village close to Balangero; he remembered frequent "snowfalls" of white powder, spread from the mine and the mill, that covered the sills of his house, and the leaves of the trees around it. From 1944 to 1945 he lived in a farm near Turin; thereafter he always lived in Turin. He denied any exposure to asbestos from hobbies or other activities. The possibility of asbestos exposure from factories near his houses in Turin was repeatedly investigated by us in the public archives without producing any positive evidence.

A 300–600 pack-year smoking history was noted from the age of 28–38 years; after that he stopped smoking.

We considered this case to be of some epidemiological relevance because the patient was substantially exposed only to chrysotile in mining and in the first treatment of the mineral and, in addition, he lived near Balangero until 1944. An exposure to amphiboles cannot be entirely ruled out only because it was the common urban environmental pollutant while he lived in Turin and he possibly handled asbestos cement coverings during the short period spent in building the new part of the Balangero mill.

NSR's work at Balangero was neither his main nor his last occupation, so it is likely that, in epidemiological studies other than cohort studies, he would have been classified as "not occupationally exposed."

Because he worked in Balangero from 1939 to 1944, he was not included in the cohort of Balangero miners and millers studied by Rubino *et al* (1979;**36**:187–94) and by Piolatto *et al* (1990;47:810–4). A 50 year latency elapsed from the beginning of exposure to asbestos to the clinical presentation of mesothelioma. This suggests that an extension of the cohort study, including workers employed before 1946, and an extension of the follow up period would be useful.

The case adds to the short list of mesotheliomas occupationally related to Balangero (two cases mentioned by Piolatto *et al* and perhaps a third unpublished one of a manager who directed the mine and the mill from 1958 to 1985; this last case was mentioned to us by a relative).

ROBERTO CALISTI
Task Unit for Occupational Safety and Health, USSL 34 Orbassano, Turin, Italy
PAOLO DE GIULI
Department of Pathology, San Luigi Gonzaga Hospital, USSL 34 Orbassano, Turin, Italy
GIAN LUIGI GHIONE
14th Pneumology Department, San Luigi Gonzaga Hospital, USSL 34 Orbassano, Turin, Italy

NOTICES

First announcement: First Congress of the European Society of Contact Dermatitis

The First Congress of the European Society of Contact Dermatitis will be held in Brussels, Belgium, 8–10 October 1992. For further information please contact the Congress organiser: Professor J M Lachapelle, Unit of Occupational and Environmental Dermatology, Louvain University, UCL 3033, 30, Clos Chapelle-aux-Champs. B-1200 Brussels. Tel 32.2.764.3335; Fax 32.2.764.3334.

International Symposium on Biological Monitoring

To be held by the Committee on Occupational Toxicology of the International Commission of Occupational Health, 12–16 October 1992, at Kyoto, Japan.

The scope and purpose of the Symposium is to exchange knowledge and discuss problems of biological monitoring of humans, the increasingly important approach in evaluating internal doses in humans exposed to hazardous chemicals in occupational, as well as in general environments.

For further information including the first circular, write to: Professor M Ikeda, Chairman of Committee on Occupational Toxicology, c/o Department of Public Health, Kyoto University Faculty of Medicine, Kyoto 606-01, Japan.