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**Title:** Pleural plaques and the risk of lung cancer in a french cohort of asbestos-exposed subjects

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**Body:** Background: it has been recently shown that pleural plaques might be an independent risk factor for pleural mesothelioma in a cohort of asbestos-exposed subjects, but the link between pleural plaques and lung cancer risk remains controversial. Methods: retired or unemployed workers previously occupationally exposed to asbestos were invited to participate in a screening program for asbestos-related diseases in four regions of France between 2003 and 2005. All subjects had individual determination of cumulative exposure index (CEI) to asbestos, based on expertise of occupational history by industrial hygienists. Randomized independent double reading of CT scans by a panel of chest radiologists allowed determination of benign asbestos-related abnormalities in 5367 subjects, blind with respect to the level of exposure to asbestos. A follow-up study was conducted in this cohort with annual determination of the number of subjects eligible for free medical care for incident lung cancer (LC) until april 2012. Odds ratio (OR) was calculated to estimate the risk of incident LC associated with pleural plaques in men, with adjustment on age, CEI to asbestos and tobacco smoking. Results: preliminary data are based on 91 incident LC cases registered between initiation of follow-up and april 2012 (mean follow-up: 7.7 years; 41356 person-years). Adjusted OR for incident LC risk associated with the presence of pleural plaques on CT-scan is 1.25 [95% confidence interval (CI): 0.76-2.07]. Conclusion: after 7.7 years of follow-up, the presence of pleural plaques is associated with a non-significantly increased risk of lung cancer in this cohort.