

Osteopontin, asbestos exposure and pleural plaques: a cross-sectional study.

BMC Public Health. 2011 Apr 8;11:220.

Mastrangelo G, Marangi G, Ballarin MN, Michilin S, Fabricio AS, Valentini F, Lange JH, Fedeli U, Cegolon L, Gion M.

BACKGROUND: Osteopontin (OPN) is a plasma protein/cytokine produced in excess in several malignancies. In a recent study OPN was reported as being related to the duration of asbestos exposure and presence of benign asbestos-related diseases; however, it was unclear whether this protein was an indicator of exposure or effect.

METHODS: In 193 workers, 50 with pleural plaques (PP), in whom different indicators of past asbestos exposure were estimated, OPN plasma levels were assessed using commercial quantitative sandwich enzyme immunoassays according to the manufacturer's instructions.

RESULTS: Osteopontin increased with increasing age and several aspects of asbestos exposure, without differences related to the presence of pleural plaques. At multivariable regression analysis, the explanatory variables with a significant independent influence on OPN were length of exposure (positive correlation) and time elapsed since last exposure (positive correlation).

CONCLUSIONS: Since asbestos in lung tissue tends to wane over time, OPN should decrease (rather than increase) with time since last exposure. Therefore, OPN cannot be a reliable biomarker of exposure nor effect (presence of pleural plaques).

FREE FULL TEXT SUL SITO DELLA RIVISTA

<http://www.biomedcentral.com/1471-2458/11/220>