Differences found between smokers and non-smokers who develop lung cancer

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Tobacco smoke is known to be the main risk factor for non-small cell lung cancer (NSCLC), although non-smokers can get it too. The incidence among non-smokers is increasing in many countries. Now a group of Portuguese researchers has found significant differences in clinical particularities and survival between smokers and non-smokers who develop NSCLC.

Dr Cátia Saraiva, from the Department of Pulmonology, of Portuguese Institute of Oncology, Lisbon, Portugal, will tell the European Respiratory Society's International Congress 2015, today (27 September, 2015) that the team studied 504 Portuguese non-smokers with NSCLC, and 904 smokers with the same disease. They found that the non-smoking patients were more likely to be women, with adenocarcinoma (the most common form of NSCLC), with less chronic obstructive pulmonary disease (COPD), heart disease, previous cancer of the larynx and weight loss. They also found that non-smokers had a significant longer survival after diagnosis: 51 months as opposed to 25 months for smokers.

"In Portugal, information on the differences in the risk and survival between smokers and non-smokers with NSCLC, has been very limited up to now," Dr Saraiva said. "Because lung cancer represents a set of tumours with confounding and sometimes misleading symptoms in both smokers and non-smokers, we felt that it was of particular importance to acquire this knowledge. We believe that the differences we found between the two groups will help improve diagnosis, and prompt

investigators to try to find out why these differences occur."

"This is the first study to look at the differences in symptoms and prognoses in in non-smokers and smokers with NSCLC in Europe, says Dr Saravia. "We believe that we have made a major contribution towards improving diagnosis and treatment for these patients."

The researchers suggest further prospective studies in order to find different prognostic factors in the areas of ageing, human pre-disposition and life-style between the two groups. "In the non-smoking group, we found professional exposure to carcinogens in 9%, a family history of lung cancer in 5%, and a previous cancer diagnosis in 6%. Additionally, 18% had high blood pressure," Dr Saraiva said.

The non-smoking group were often diagnosed at an advanced stage of disease, 59% of them at stage IV, where the cancer had already spread to other parts of the body, namely different areas in the same lung, the opposite lung, bones, and brain.

"It seems plausible that the non-smoking Portuguese population is not aware of lung cancer risks. But we need to confirm our results through population-based studies, before public education issues can be addressed," says Dr Saravia.

When planning the treatment of NSCLC an additional problem is the simultaneous occurrence of many diseases not directly related to lung cancer. "These co-morbidities increase the difficulties of interpreting clinical symptoms and making decisions about treatment, and mean that we need to fine-tune our clinical practice," says Dr Saraiva. "We hope that our study, involving a significant number of patients, will help that fine-tuning and enable us to tailor treatment more precisely for each individual case."

More information: Abstract: Differences in epidemiological and clinical features in non-small cell lung cancer (NSCLC) in never and ever smokers

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