Worker age-related issues

**P-185** AGE OR WORK-RELATED LUMBAR DISC DEGENERATION?

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**Introduction** In Italy the recognition of the occupational origin of a disease gives the right to economic benefits. The request of occupational disease are often submitted to the insurance institute for workers already in old age and for diseases with a multifactorial genesis with considerable difficulties in the verification of the causal or concausal nexus for the presence of age-related degenerative disease in these subjects. So an important discriminant in subjects exposed to proven occupational risk is the appearance of the disease at an early age and with peculiar and more serious characteristics compared to the general population.

**Objective** The objective of this review is to describe the most common age-related changes of the lumbar spine in the general population and the useful criteria to discriminate and to verify the existence of a disease that has a causal or concausal correlation with the work activity.

**Methods** Databases such as pubmed, scopus and web of science were used, keywords such as ‘age-related’ or ‘aging’ and ‘lumbar disc degeneration/degenerative disc disease’ or ‘protrusion’ or ‘hermatied disc/disc herniation’ in Title/Abstract.

**Results** According to a study by Boden et al. (1990) disc degeneration in at least one lumbar metameric level is detectable in 35% of twenty- to thirty-nine-year-old subjects, but all sixty- to eighty-year-old subjects show disc degenerative processes.

The discs of the lower lumbar segments are more vulnerable to degenerative changes than the upper lumbar segments (Miller et al., 1988).

**Conclusions** Although biomechanical overload has always been considered an important element of intervertebral disc wear, genetic influences and constitutional factors seem to be more implicated in the development of intervertebral disc disease (Di Giampaolo et al., 2021).

The presence of a modest disc disease in old age, which also involves the inferior lumbar segments, in the case of established familiarity, appears to be parapathophysiological and, therefore, difficult to correlate with the work activity performed.

**Respiratory effects/Diseases**

**P-190** RESPIRATORY SYMPTOMS DUE TO PESTICIDE USE AND ASSOCIATED FACTORS IN POTATO GROWERS

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Potato cultivation in Colombia represents one of the main activities in the agricultural sector. Farmers’ exposure to pesticides can lead to the appearance of respiratory symptoms due to gas inhalation.

Objective To determine the factors that influence the prevalence of respiratory symptoms secondary to pesticide exposure in potato farmers in Ventaquemada, Boyacá, during 2018.

**Method** A cross-sectional analytical study was conducted by applying a standardised questionnaire to 107 potato farmers to identify the association between the presence of respiratory symptoms and pesticide exposure using logistic regression analysis.

**Results** 107 surveys were completed, 64.5% reported respiratory symptoms, the most prevalent symptoms being cough, dyspnoea and rhonchi. Pesticide use had a 2-fold higher prevalence of respiratory symptoms (PR 2.97 (95%CI=2.26–3.89, p=0.01) than non-users. The logistic regression model showed that the following variables increased the risk of respiratory symptoms: not wearing a hat or cap 1.67 times (95% CI=0.67–4.13, p=0.26), using 2 or more pesticides 2.39 times (95%CI=0.97–5.88, p=0.05) and rural location of residence decreased 0.2 (95%CI: 0.03–1.22, p=0.08). Having less than 30 years of work experience as a farmer decreased the risk of respiratory symptoms by 0.2 times (95%CI: 0.10–0.70, p=0.00), the latter variable was the only statistically significant variable.

**Conclusion** Work experience of less than 30 years was found to be a protective factor against the likelihood of respiratory symptoms in farmers. Although the relationships between the variables in the model were not statistically significant, they can be considered as independent risk factors. The homogeneity of the sample limits the results, with the possible presence of false negatives in the study. The inadequate handling of pesticides (including non-use of protective measures) by the majority of subjects, in addition to the double prevalence of respiratory symptoms compared to the general population, are notable findings.

**Carcinogens/Cancer**

**P-191** OCCUPATIONAL EXPOSURE AND LUNG CANCER: A BASED HOSPITAL CASE-CONTROL STUDY

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**Introduction** Lung cancer is a public health problem. In Tunisia, the incidence of these cancers is increasing, especially in women. Smoking is a universally recognized risk factor. However, the part of environmental and professional exposures is not insignificant.

Therefore, it is important to determine the occupational factors involved in the genesis of primary bronchopulmonary cancers.

**Methods** A case-control study of 109 histologically confirmed cases of lung cancer and 109 controls matched for gender and age group (±5 years) was conducted.

We collected information on socio-demographic characteristics, medical data, and occupational history. A job-exposure matrix was used to infer exposure to lung carcinogens.

**Results** Cases were older than controls (mean age: 60 and 58 respectively, p=0.45). Only 11.9% of cases were never-smokers,