Oral Presentation

Cancer

0152 CANCER MORTALITY OF DMF EXPOSED WORKERS IN KOREA

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This study is to identify the association of urinary N-methylformamide level (UNMFL) with cancer mortality in N,N-dimethylformamide (DMF)-exposed male workers in Korea. A cohort was composed of 11,953 DMF exposed workers working between January 1, 2000, and December 31, 2004. These cohort members were matched with the mortality data of the Korean National Statistical Office to follow-up for cancer mortality between 2000 and 2011. Standardised Mortality Ratios (SMRs) of DMF exposed workers with reference to Korean men were calculated. Also controlling age, other carcinogen exposure including hepatitis B and C, the Adjusted Hazard Ratios (AHRs) of workers categorised by the 3 groups of UNMFL with reference to workers with zero UNMFL were calculated. There were no significantly increased or decreased SMRs except for stomach cancer (SMR=0.38, 95% CI=0.10–0.98). The AHRs of overall cancer mortality were significantly increased in workers with 7.5 to 15 mg/L (SMR=2.72, 95% CI=1.09–6.81) and 15 and over 15 mg/L (SMR=2.41, 95% CI=1.03–5.66) compared with workers with 0 UNMFL. Hepatocellular carcinoma mortality (AHR=3.73, 95% CI=1.05–13.24) of workers with 15 and over 15 mg/L and lung cancer mortality (SMR=14.36, 95% CI=1.41–146.86) in workers with 7.5 to 15 mg/L were significantly increased compared with workers with 0 UNMFL. In this study workers with high UNMFL showed increased mortalities for overall, liver and lung cancer comparing to those of workers with zero UNMFL, which suggests DMF might be caused cancer, especially hepatocellular carcinoma which was approved carcinogenicity on liver in animal experiments.

Oral Presentation

Cancer

0153 RISK OF BLADDER CANCER IN A COHORT OF CHEMICAL WORKERS

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Objective Bladder cancer is the fourth most frequent cancer among men in Germany. Aromatic amines can cause bladder cancer and therefore cancerogenic aromatic amines have been

banned a long time ago from workplace, but a long latency can still increase the risk of former exposed workers. In this study, we will assess the risk of bladder cancer in a cohort of chemical workers with earlier use of aromatic amines compared to the general population.

Methods In the prospective cohort study UroScreen, 1800 former chemical workers exposed to aromatic amines were offered to participate in an early detection of bladder cancer by means of tumour markers. In 2003–10, 1609 people were examined at least once. The exposure to aromatic amines was determined by means of questionnaires. The observed bladder cancer incidence was compared with the expected incidence in the general population. Bladder cancer risk was estimated as standardised incidence ratio.

Results Nine incidence urinary bladder carcinoma occurred during the study. Eight cases were ex-smokers and one case was non-smoker. All cases were exposed for at least 10 years, including six cases longer than 20 years. Compared to the general population, the risk of bladder cancer was 2.94 (95% CI 1.35–5.59).

Conclusions Since almost all cases have both smoked and were highly exposed, reliable risk detection is difficult. Nevertheless, in view of a threefold increased risk, the early detection of urinary bladder carcinomas were promising.

Poster Presentation

Other

0154 OCCUPATIONAL DISEASES ATTENDED AT PARC DE SALUT MAR (BARCELONA): CARE COSTS IN A SERIES OF CONFIRMED CASES (2010–2014)

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Background The Spanish National Health System (NHS) covers non-work-related diseases. The Social Security system, mainly through collaborating insurance companies, covers both medical and wage-related costs of occupational diseases; however, the actual exchange of resources has not been well studied until now. The objective of this study was to evaluate the economic cost of medical care generated by a series of confirmed cases of occupational disease (OD) treated at Parc Salut Mar (PSMAR) in Barcelona, an NHS health system.

Methods Economic study of 40 cases of suspected OD by the PSMAR Occupational Disease Unit (ODU). Between 2010 and 2014, information on the care received (stays, visits, emergencies, diagnostic tests, medical and surgical treatments, etc.) was independently reviewed by three experts, and discrepancies resolved by one of them. The economic value of the care received in relation to the underlying suspected OD was expressed in terms of actual cost and billing rate, according to age, sex, diagnostic group and type of care received.

Results The total cost of the 40 cases was 181,072.3€ and the average cost per case was 4,526.8€. Cancer accounted for 84% of all cases. Men accounted for 93% of the total cost and those over 65 years were 76% of the total. The amount billed for the 40 cases was 146,964.6€.

Conclusions This study provides precise economic information that must be considered in the coordination needed between the NHS and the Social Security, which should significantly contribute to the reporting of ODs and their prevention.

Poster Presentation

Developing Countries

0155 NEGOTIATING RISKS AND UNCERTAINTIES: HEALTH AND SAFETY DECISION-MAKING IN THE MINES OF POTOSÍ (BOLIVIA)

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It is generally agreed that knowledge of the causes and consequences of a particular OHS risk influences the way people prepare for and respond to it. My ethnographic research among the cooperative miners working in Potosí's Cerro Rico shows however a much more complex scenario, in which miners simultaneously face a number of physical, geological, socio-political and economic risks and uncertainties as they go about their work and lives which must be carefully weighed against each other. Miners often have little or no control over most of these risks that simultaneously affect them, and health and safety risks are only a small group of concerns. Prone to take risks to their health at work as a strategy to manage other risks that simultaneously affect them Potosí's miners are well aware of the potential losses of taking OHS risks, but also of the potential gains of their decisions. This presentation offers an anthropological account of the factors, conflicts and negotiations that shape voluntary health and safety risk taking amongst the cooperative miners working in the Cerro Rico of Potosí. Unveiling the complex factors and relationships that impede the miners' ability to respond to OHS risks as per their wishes and understandings this presentation demonstrates the need for revisiting the value of OHS risk perceptions as strategy to eliminate occupational injuries.

Poster Presentation

Cancer

0156 LUNG CANCER AMONG MEAT INDUSTRY WORKERS: RESULTS OF THE ICARE STUDY

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Purpose Lung cancer among butchers and others meat workers has been investigated in a French population based case-control study ICARE.

Methods Detailed information was collected on occupational history and smoking habits from 2926 patients with histologically confirmed lung cancer and 3555 matched controls. Jobs were defined according to the international Standard Classification of Occupations (ISCO) codes and categorised according to the French Nomenclature of Activities (NAF). Smoking history was combined into a comprehensive smoking index (CSI) that included mean number of cigarettes/day, duration and time since cessation.

Personal history of hand warts were used as a proxy for an eventual exposure to the HPV (2,7).

Odds ratios (OR) and 95% confidence intervals (CI) were estimated using unconditional logistic regression models and controlled for well-established risk factors for lung cancer including smoking and occupational exposure to asbestos.

Results We found an increased risk of lung cancer among meat workers (101 cases/85 controls; OR=1.46, 95% CI=1.01–2.13), especially among those who started working before the age of 17 (OR=1.72, 95% CI=1.08–2.74). The risk was concentrated in workers exposed to slaughtered meat including Slaughterers (ISCO code 77320) and Meat Cutters (ISCO code 77330). Associations were not affected by history of hand warts. However, pronounced inverse associations for lung cancer were shown with personal history of hand warts (OR=0.63, 95% CI=0.56–0.71).

Conclusions Working in meat industry may increase risk of lung cancer suggesting the role of oncogenic viruses other than HPV. Associations with history of hand warts remain to be clarified by future studies.

Oral Presentation

Occupational Medicine (SCOM/Modernet)

0157 CHARACTERISTICS OF INDIVIDUALS RECEIVING A DISABILITY BENEFIT AND PREDICTORS OF LEAVING THE DISABILITY BENEFIT SCHEME. A 5 YEARFOLLOW-UP STUDY

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Nowadays, work disability is one of the largest social and labour market challenges for policy makers in almost all OECD countries. Understanding of factors associated with long-term work disability may be helpful to identify groups of individuals at risk for disability benefit entitlement or continuing eligibility, and to develop effective interventions for these groups. The purpose of this study is to give insight into the main diagnoses of workers who qualify for disability benefit and how these diagnoses differ between age groups, gender and educational level. Moreover, using a 5 year follow-up period, we study the duration of the disability benefit and examine how durations differ between individuals with different characteristics.