Poster Presentation

Cancer

0385 OCCUPATIONAL EXPOSURE TO DIESEL MOTOR EXHAUST AND THE RISK OF CANCER OF THE ORAL CAVITY, PHARYNX AND LARYNX: THE ICARE STUDY

[1]Aurélie Gérazime, [1]Christine Barul*, [2]Gwenn Menvielle, [3]Isabelle Stücker, [1]Danièle Luce. *[1]INSERM U1085 – IRSET, Pointe-à-Pitre, France; [2]Sorbonne Universités, UPMC Univ Paris 06, INSERM, IPLESP UMRS 1136), Paris, France; [3]INSERM U1018 – CESP, VIllejuif, France*

10.1136/oemed-2017-104636.318

Background Diesel motor exhaust is a recognised risk factor for lung cancer, but few studies have investigated the effect of diesel emissions on other parts of the respiratory tract. We used data from the ICARE study, a French population-based case-control study, to investigate the associations between exposure to diesel motor exhaust and the risk of cancer of the oral cavity, pharynx and larynx.
Methods The analysis was restricted to men and included cases of squamous cell carcinomas of the oral cavity, oropharynx, hypopharynx and larynx (350, 543, 383 and 454 cases, respectively) and 2780 controls. Detailed information on lifetime occupational history, tobacco smoking and alcohol drinking was collected by interview. We assessed occupational exposure to diesel motor exhaust from questionnaire responses. We used logistic regression to estimate odds ratios (OR) and their 95% confidence intervals (CI), adjusted for age, residence area, smoking, alcohol drinking and asbestos exposure.
Results No association was found between exposure to diesel motor exhaust and cancer of the oral cavity (OR=0.88, CI=0.65–1.18), oropharynx (OR=0.83, CI=0.65–1.10), hypopharynx (OR=0.84, CI=0.65–1.18) or larynx (OR=1.11, CI=0.86–1.43). There was no indication of increasing risk with increasing duration of exposure, for any of the cancer sites.
Conclusion These findings do not provide evidence that occupational exposure to diesel motor exhaust increases the risk of oral, pharyngeal or laryngeal cancer.

Oral Presentation

Cardiovascular Disease

0386 OCCUPATIONAL NOISE EXPOSURE AND AMBULATORY BLOOD PRESSURE: THE EXPOSURE RESPONSE RELATION WITH ACUTE AND LAGGED EXPOSURE

[1]Zara Ann Stokholm*, [2]Kent Lodberg Christensen, [1]Thomas W Frederiksen, [1]Jesper M Vestergaard, [3,5]Åse Marie Hansen, [4]Jens Peter Bonde, [5]Jesper Kristiansen, [5]Søren Peter Lund, [1]Henrik A Kolstad. *[1]Department of Occupational Medicine, Danish Ramazzini Centre, Aarhus University Hospital, Aarhus, Denmark; [2]Department of Internal Medicine and Cardiology A, Aarhus University Hospital, Aarhus, Denmark; [3]Faculty of Health, University of Copenhagen, Copenhagen, Denmark; [4]Department of Occupational and Environmental Medicine, Bispebjerg Hospital, Copenhagen, Denmark; [5]National Research Centre for the Working Environment, Copenhagen, Denmark*

10.1136/oemed-2017-104636.319

Background Long-term environmental noise exposure has repeatedly been related to increased risk of cardiovascular disease at exposure levels as low as 35 dB(A). Occupational exposure levels are orders of magnitude higher than the environmental levels. We examined if blood pressure was increased during and subsequent to occupational noise exposure.
Methods We studied 483 industrial, finance, and service workers selected as a random sample from 10 industrial trades and financial services between 2009 and 2010. For 24 hours, we recorded noise exposure levels every 5 s by personal dosimeters and measured ambulatory blood pressure and heart rate every 20–30 min. In mixed linear regression models, we assessed the acute and lagged effects of ambient noise exposure (LAEq)) on blood pressure and heart rate for work, leisure and night hours. For 319 workers, we estimated these effects for noise exposure at the ear accounting for hearing protection use.
Results Full-shift occupational noise exposure levels ranged between 59–97 dB(A). Results of the regression models adjusted for sex, age, income, BMI, alcohol, tobacco, salt intake, and family history of hypertension suggest no relation between acute or lagged occupational noise exposure level and blood pressure levels for the industrial workers.
Conclusion Occupational noise exposure showed no acute or lagged effects on blood pressure in industrial workers.

Oral Presentation

Cancer

0387 WELDING AND THE RISK OF HEAD AND NECK CANCER: RESULTS FROM THE ICARE STUDY

[1]Christine Barul*, [2]Mireille Matrat, [2]Isabelle Stücker, [1]Danièle Luce. *[1]INSERM U1085-IRSET, Pointe-à-Pitre, France; [2]INSERM U1018 – CESP, Villejuif, France*

10.1136/oemed-2017-104636.320

Objective We used data from the ICARE study, a French population-based case-control study, to investigate the associations between welding and the risk of head and cancer.
Methods The analysis was restricted to men and included 1857 cases of squamous cell carcinomas of the oral cavity, pharynx and larynx and 2780 controls, with detailed information on lifetime occupational history, tobacco smoking and alcohol drinking. A supplementary questionnaire was used to describe welding activities for those welding more than 5% of their working time. Odds-ratios (OR) and 95% confidence intervals (CI) associated with regular and occasional welding were estimated with logistic regression, with adjustment for age, residence area, smoking, alcohol drinking and asbestos exposure.
Results Regular welding was associated with an increased risk of cancer of the larynx (OR=2.68, CI=1.52–4.75), oral cavity (OR=2.30, CI=1.17–4.53) and hypopharynx (OR=1.66, CI=0.83–3.30). No association was found with oropharyngeal cancer (OR=1.05, CI=0.57–1.95). For laryngeal cancer, the OR increased for longer duration of welding (for >10 years: OR=3.13, CI=1.42–6.90). No relationship with duration was observed for the other cancer sites. Preliminary analyses did not reveal marked differences according to the type of metal welded or to welding processes. Occasional welding for more than 10 years was associated with a slight, non-significant elevated risk of oral, laryngeal and hypopharyngeal cancer.