14 EXPOSURE TO WOOD DUST AND RISK OF NASAL CANCER - THE IMPACT OF HARD AND SOFT WOOD AND HISTOLOGICAL SUBTYPE

Johnni Hansen,[1] Jette Bornholdt Lange,[2] Vivi Schlünssen,[3] Håkan Wallin[2] *[1]Danish Cancer Society, Copenhagen, Denmark; [2]National Research Centre for the Working Environment, Copenhagen, Denmark; [3]Aarhus University, Aarhus, Denmark*

10.1136/oemed-2011-100382.14

Objectives Exposure to wood dust is recognised as a cause of nasal cancer. It is, however, somewhat unclear to which extent different histological subtypes are affected, and in particular if both soft and hard wood exposure are causal factors.

Methods We conducted a case-controls study based on incident cases of nasal cancers (ICD-7: 160) retrieved from the nationwide Danish Cancer Register. Control subjects (2:1) with same distribution on sex and birth year as cases were retrieved from the Central Person Register by the incidence density sampling method. Study subjects or next-of-kins were interviewed regarding the entire occupational history, including exposure to specific types of wood, and confounders (formaldehyde, chromium, nickel and textile dust, and tobacco smoking). Semi-quantitative exposure to wood dust and potential occupational confounders were also assessed by application of a Job Exposure Matrix. Relative risks were estimated by OR by logistic regression models conditional on 5-years birth year groups.

Results In total 163 (58 adenocarcinomas and 105 squamous cell carcinomas) cases and 295 controls were successfully interviewed. For hard wood dust, we observed an increasing risk of adenocarcinomas by increasing cumulative exposure ($p<0.001$) and by years of exposure ($p<0.001$), with an OR of 20 (5.3–74.1) after 35 years of exposure. We observed no significant effect of exposure to soft wood dust for any of the subtypes of nasal cancer.

Conclusions This study confirmed the strong association between hard dust exposure and nasal adenocarcinomas, and found no association between soft wood exposure and nasal cancer.