ETIOLOGICAL ROLE OF OCCUPATIONAL EXPOSURE IN DIFFERENT SUBTYPES OF SINO-NASAL CANCER: RESULTS FROM A LARGE HOSPITAL-BASED COHORT IN ITALY

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Objectives Sino-nasal cancer (SNC) is a rare and potentially fatal disease with a high occupational attributable fraction, being wood, leather dust, metals and PAH’s well recognised carcinogenic agents. The importance of occupational exposure is often underestimated with some authors that disputed its role in the pathogenesis of histological subtypes different from adenocarcinoma (AC), mainly squamous-cell-carcinoma (SCC). We quantified the etiological role of occupational exposure in a large hospital based cohort of SNC.

Methods We systematically evaluate all cases after surgical treatment in Otorhinolaryngology department (period: Feb-2010/Feb-2011) through a standardised and validated questionnaire developed with the National Registry for SNC cases.

Results We evaluated 48 cases (69% AC, 21% SCC, 10% other), 13 of them were women. Mean age at diagnosis was 63. A previous occupational exposure was recognised for 31 cases (65% of the total). The proportion of occupational cases was higher for AC (84%) than for SCC and for other histotypes (20%). For AC the more common risk factors were leather (47% of all cases) and wood dusts (32%). Conversely, SCC resulted exposed to a wider range of carcinogen factors (comprising formaldehyde, PAH, metals). Mean latency was 51y (range 30–65), mean duration of exposure was 26y (range 2–52).

Conclusions Occupational exposure plays a key role in the aetiopathogenesis of SNC, not only for AC (with wood and leather dust that confirmed their impact in term of public health) but also for other histotypes with formaldehyde and PAH’s as important and often misrecognised occupational factors.