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Lung cancer in young females

To the Editor:

We read with interest the article by LIENERT *et al.* [1]. Based on data of the clinical cancer registry at the Lungenklinik Heckeshorn, Berlin, 1986–1995, the authors examined whether young female lung cancer patients (≤ 45 yrs of age, $n=96$) differ from all other lung cancer patients ($n=4,843$) with respect to risk factors, histology and clinical features. They found a higher proportion of adenocarcinomas (38%) and carcinoids in young females. Other main characteristics of young females were a high proportion of ever-smokers (88%) and a large number of patients who reported a first degree relative with lung cancer (13%). We would like to add our recent findings of a large-scaled, case-control study of lung cancer conducted in Germany from 1990–1996 [2, 3], which aimed to investigate risk factors for lung cancer in young adults. This study included 251 young patients and 280 population controls (≤ 45 yrs of age), as well as 2,009 older cases and 2,039 older controls (55–69 yrs of age). Adenocarcinomas were more frequent in young males (41%) and young and older females (44% and 47%, respectively) than in older males (28%). Differences in histology between age groups could be explained, in part, by differences in smoking patterns. However, there are still unknown factors that appear to favour the development of adenocarcinoma in the young [3]. A history of lung cancer in first degree relatives was associated with a 2.6-fold (95% confidence interval (CI) 1.1–6.0) increased risk in the young, while no elevated risk was observed in the older group (odds ratio=1.2 95% CI 0.9–1.6). Additional evidence for an age-specific genetic predisposition in lung cancer was recently provided by GAUDERMAN and MORRISON [4]. About 80% of our young female cases were current smokers, demonstrating a 30-fold increased lung cancer risk compared to never-smoking young females [2]. As stated by

LIENERT *et al.* [1], smoking is the main risk factor for lung cancer in young females. This was recently supported in a pooled analysis of European case-control studies of lung cancer in young females [5], where 84% of female patients aged 40–45 yrs could be attributed to active smoking.

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From the authors:

The valuable data of our colleagues M. Kreuzer and H.E. Wichmann support the main results from our own series. Yet it is remarkable that in their patients, adenocarcinoma in older females (55–69 yrs of age)