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Smoking linked to shorter survival after motor neurone disease diagnosis

…and younger age at symptom start

Smoking is linked to shorter survival after a diagnosis of motor neurone disease, also known as amyotrophic lateral sclerosis, as well as younger age when the symptoms first appear, finds research published online in the ***Journal of Neurology Neurosurgery & Psychiatry.***

Amyotrophic lateral sclerosis, or ALS for short, is a progressive degenerative disease affecting nerve cells in the brain and spinal cord (motor neurones) that control a range of muscle functions, from speaking and swallowing to breathing. It affects around two in every 100,000 people in the UK each year.*

There is currently no cure, but various factors have been associated with its development, including genes, age, gender, underlying conditions, and lifestyle.

In a bid to find out if tobacco might have a role, the researchers gathered information on the smoking habits and evidence of respiratory disease (COPD) among 650 people diagnosed with ALS between 2007 and 2011 in one region of northern Italy.

Some 121 patients (18.6%) were regular smokers at the time of their diagnosis, while 182 (28%) had stubbed out their habit before diagnosis; and 347 (53.4%) were lifelong non-smokers.

In all, 44 of the patients had COPD, which is known to shorten life; 22 of them were ex-smokers.

The average survival of patients with COPD was shorter than that of people without. But smoking seemed to be linked to faster disease progression and how long a patient lived after diagnosis, whether or not they had underlying COPD.

Current smokers had a significantly shorter lifespan than did either ex-smokers or lifelong non-smokers.
They survived an average of 1 year and 9 months while former smokers survived an average of 2 years and 3 months, and non-smokers lived for an average of 2 years and 7 months after diagnosis.

This difference held true irrespective of the age at which symptoms started, where they started, gender, or severity of COPD.

Smokers also tended to be younger when diagnosed, averaging just under 65, than either ex-smokers (67.5), or lifelong non-smokers (just over 66), and they tended to experience more rapid disease progression.

This is an observational study, so no firm conclusions can be drawn about cause and effect, and while the researchers describe their findings as “intriguing,” they point out that as yet it is unclear how smoking might affect the development and progression of ALS.

Several possible explanations have been mooted, including disruption of enzymes that curb free radical damage, and the potential for smoking to damage DNA, with the effects persisting even after a smoker has quit.

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Notes for editors:
Research: Influence of cigarette smoking on ALS outcome: a population-based study doi 10.1136/jnnp-2016-313793
http://jnnp.bmj.com/lookup/doi/10.1136/jnnp-2016-313793

Podcast:
https://soundcloud.com/bmjpodcasts/influence-of-cigarette-smoking-on-als-outcome-a-population-based-study/