

Sleep apnoea linked with increased risk of cancer death

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Sleep apnoea severity has been associated with increased cancer mortality in a new study.

The research, which will be presented today (Tuesday 4 September 2012) at the European Respiratory Society's (ERS) Annual Congress in Vienna, adds to evidence presented earlier this year highlighting a link between severe [sleep apnoea](#) and [cancer](#).

Two further studies presented at the ERS Congress, also show evidence suggesting an increase in [cancer incidence](#) among [sleep](#) apnoea patients and an association between the spread of cancer and sleep apnoea.

In the first study, over 5,600 patients from 7 different sleep clinics in Spain were analysed to investigate the link between sleep apnoea and [cancer mortality](#).

The severity of sleep apnoea, was then measured, using an hypoxaemia index. This index measures the amount of time during the night that a person suffers from low levels of oxygen in the blood (less than 90% oxygen saturation).

The results showed that people with sleep apnoea who spent more than 14% of their sleep with levels of [oxygen saturation](#) below 90% (usually severe sleep apnoea patients) had approximately double the relative risk of death due to cancer (odds ratio 1.94), than people without sleep apnoea. The results showed that this association was even higher in men

and younger people.

People with sleep apnoea can be treated using continuous positive [airway pressure](#) (CPAP) therapy, which generates a stream of air to keep the upper airways open during sleep. In the first study, patients who were not using this device consistently had an increased relative risk (odds ratio 2.56) of death from cancer.

Lead author, Dr Miguel Angel Martinez-Garcia from La Fe University Hospital in Valencia, Spain, said: "We found a significant increase in the relative risk of dying from cancer in people with sleep apnoea. This adds to evidence presented earlier this year that found for the first time a link between cancer and sleep apnoea mortality. Our research has only found an association between these disorders but this does not mean that sleep apnoea causes cancer.

Similar results were also found in the second study which showed an increase in all-type cancer incidence in people with severe sleep apnoea. The link was present even when factors such as age, sex, weight and other comorbidities of participants, were controlled for.

Lead author, Dr Francisco Campos-Rodriguez from Valme University Hospital in Seville, Spain, said: "Further studies are necessary to corroborate our results and analyse the role of CPAP treatment on this association. We hope the findings of our studies will encourage people to get their sleep apnoea diagnosed and treated early to help maintain a good quality of life."

In a third study, researchers used a mouse model of skin cancer (melanoma) to investigate tumour spread (metastasis) and whether this was associated with sleep apnoea.

The results showed that the spread of cancer was more abundant in mice

that had been subjected to intermittent hypoxic air, with low levels of oxygen as in sleep apnoea, than those who breathed normal air during the experiment.

Lead author, Professor Ramon Farre from University of Barcelona in Spain, said: "The data from this study in animals strongly suggests a link between the spread of cancer and sleep apnoea. This provides strong evidence to encourage further study in this area to understand in more detail the links between sleep apnoea and cancer."

Provided by European Lung Foundation

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