Drinking more coffee could reduce liver cancer risk, suggests study

May 29 2017

One more coffee a day associated with 20 per cent reduction in liver cancer. Credit: University of Southampton

Drinking more coffee could reduce the risk of developing the most common form of primary liver cancer, according to a study led by the University of Southampton.

Researchers from Southampton and the University of Edinburgh found that the more coffee consumed the greater the protection against hepatocellular cancer (HCC).

Drinking one cup more of caffeinated coffee a day was associated with a 20 per cent reduction in the risk of developing HCC, two cups more with a 35 per cent reduction, and up to five cups with a halving of the risk.

The protection was found to be the same for both existing coffee-drinkers and those who didn't usually drink it, and the more coffee consumed the greater the effect – although there was little data available above five cups a day.

Decaffeinated coffee was also found to have a beneficial, though less marked, effect.

The research, published in the journal *BMJ Open*, examined the data from 26 observational studies, involving more than 2.25 million participants, to calculate the relative risks of developing HCC for drinking between one and five cups of caffeinated coffee a day.

Lead author Dr Oliver Kennedy, of the University of Southampton, said: "Coffee is widely believed to possess a range of health benefits, and these latest findings suggest it could have a significant effect on liver cancer risk.

"We're not suggesting that everyone should start drinking five cups of coffee a day though. There needs to be more investigation into the potential harms of high coffee-caffeine intake, and there is evidence it should be avoided in certain groups such as pregnant women.

"Nevertheless, our findings are an important development given the increasing evidence of HCC globally and its poor prognosis."

HCC is the second leading cause of cancer death globally because of its poor prognosis and high frequency, especially in China and Southeast Asia. It mostly develops in people who are already suffering from

chronic liver disease.

It is estimated that, by 2030, the number of new cases annually will have risen by about 50 per cent to more than 1.2 million.

The compound molecules found in coffee possess antioxidant, anti-inflammatory, anticarcinogenic and other beneficial properties which scientists believe may explain the lower rates of chronic liver disease and liver cancer experienced by coffee-drinkers.

About 2.25 billion cups of coffee are consumed daily worldwide, and increased coffee consumption has already been shown to protect against serious non-cancer chronic liver disease (cirrhosis).

Professor Peter Hayes, of the University of Edinburgh, commented: "We have shown that coffee reduces cirrhosis and also liver cancer in a dose-dependent manner. Coffee has also been reported to reduce the risk of death from many other causes. Our research adds to the evidence that, in moderation, coffee can be a wonderful natural medicine."

Dr Kennedy added: "The next step now is for researchers to investigate the effectiveness, through randomised trials, of increased coffee consumption for those at risk of liver cancer."

More information: Oliver John Kennedy et al. Coffee, including caffeinated and decaffeinated coffee, and the risk of hepatocellular carcinoma: a systematic review and dose–response meta-analysis, *BMJ Open* (2017). DOI: 10.1136/bmjopen-2016-013739

Provided by University of Southampton