Alcohol in moderation reduces deaths in men who have survived a heart attack

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Men who are moderate drinkers and who have survived a first heart attack have a lower risk of death from heart disease or any other cause than non-drinkers, according to the results of a study of nearly 2000 men in the USA.

The latest findings from the US Health Professionals Follow-up Study, a prospective study of 51,529 US male health professionals, are published online today (Wednesday) in the European Heart Journal and they show that, having survived a first heart attack, men who drank approximately two alcoholic drinks a day over a long period of time had a 14% lower risk of death from any cause and a 42% lower risk of death from cardiovascular disease than non-drinkers.

The first author of the study, Dr Jennifer Pai, assistant professor of medicine at Channing Laboratory, Department of Medicine, Brigham and Women's Hospital and Harvard Medical School, and a research associate at Harvard School of Public Health, said: "Our findings clearly demonstrate that long-term moderate alcohol consumption among men who survived a heart attack was associated with a reduced risk of total and cardiovascular mortality. We also found that among men who consumed moderate amounts of alcohol prior to a heart attack, those who continued to consume alcohol 'in moderation' afterwards also had better long term prognosis."

Although it is already known that moderate alcohol consumption is associated with a lower risk of heart disease and death in the healthy

population, so far it has been unclear whether it may also be related to lower death rates among people who have established heart disease. Until now, there has been no prospective study that has measured alcohol drinking both before and after a heart attack, with long-term follow-up.

Dr Pai and her colleagues looked at a subset of 1818 men in the Health Professionals Follow-up Study who had survived a first heart attack between 1986 and 2006. The researchers followed them for up to 20 years from the time of the heart attack. During this period 468 men died.

The researchers questioned the men about their alcohol consumption and diet every four years, and also asked them about other lifestyle and medical factors (such as body mass index, smoking etc) every two years. The men reported their average intake of beer, white and red wine, and spirits (liquor). A standard portion was specified as a 4oz (125 ml) glass of wine (which contains 11g of ethanol – the alcohol in the drink), a bottle or can of beer (12.8g of ethanol), a shot of spirits (14g of ethanol). The men were apportioned to four groups based on the quantity that they drank: 0g, 0.1-9.9g, 10-29.9g, and 30g or more a day. Those who drank between 10 and 29.9g of alcohol a day – the equivalent of approximately two drinks – were classed as "moderate" drinkers.

After adjusting for various factors that could affect the results, such as smoking, body mass index, age and medical history, the researchers found that the men who consumed approximately two alcoholic drinks a day after their first heart attack had a lower risk of death from any cause than the non-drinkers. The type of drink did not affect the results.

When they looked at levels of alcohol consumption before and after the heart attack, they found that the majority of men did not change their drinking habits, and also that those who drank before and afterwards tended to have a lower risk of death than the non-drinkers. However, due to the smaller numbers in this analysis, the results were not statistically

significant.

There was a "U" shape to the results, which showed that men who drank the most (30g or more a day) had a risk of death from any cause that was similar to the non-drinkers.

"The adverse health effects of heavy drinking are well known, and include high blood pressure, reduced heart function and reduced ability to break down blood clots. In addition, other studies have shown that any benefits from light drinking are entirely eliminated after episodes of binge drinking," said Dr Pai. "Our results, showing the greatest benefit among moderate drinkers and a suggestion of excess mortality among men who consumed more than two drinks a day after a heart attack, emphasise the importance of alcohol in moderation.

"The findings of our study support the European Society of Cardiology recommended guidelines for long-term management of acute coronary syndromes that moderate alcohol consumption of 10-30 grams per day in men should not be discouraged and may be beneficial for long-term prognosis after a heart attack. If the men were already consuming moderate amounts, then it may be beneficial to continue consuming moderate amounts of alcohol after a myocardial infarction. However, because excessive alcohol intake is harmful, we recommend that patients discuss drinking alcohol in moderation with their physicians to individually assess their risks and potential benefits."

The study has some limitations, including the fact that reporting alcohol intake via questionnaires might lead to measurement errors, and that the way heart attacks are treated has changed over the past 20 years. However, the researchers do not believe these affect the validity of the results. In addition, the findings only relate to drinking in men.

"Our study was only among men, so we cannot extrapolate to women,"

explained Dr Pai. "However, in all other cases of alcohol and chronic disease, associations are similar except at lower quantities for women. Thus, an association is likely to be observed at 5-14.9g per day, or up to a drink a day for women."

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