Department of Internal Medicine and Clinical Nutrition

Abstract

Title: Does coffee consumption affect the risk of stroke?

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Background: The widespread consumption of coffee worldwide makes this drink interesting to study from a public health perspective. Even minor health effects may be important for the whole population. Stroke patients require the largest number of days spent in hospitals and nursing homes than any other medical condition group. Risk factors for stroke include smoking, high alcohol intake, physical inactivity, hypertension, hypercholesterolemia, high waist-hip ratio and diabetes. Coffee consumption could affect the incidence of stroke, among others because of its content of antioxidants and effects on insulin sensitivity.

Objective: To identify the association between coffee consumption and the risk of stroke.

Search strategy: The search engines PubMed, Scopus and Cochrane was used for collection of articles. Search terms were (coffee AND stroke) AND (risk OR incidence) and “coffee” AND “stroke”.

Selection criteria: Included were human studies in Swedish/English studying adults in RCT or cohort design and examine the relationship between coffee consumption and stroke. Excluded were case-control studies, studies investigating the relationship between coffee consumption after onset of stroke, studies only available when ordering, studies with the study population consisting of a particular risk group for stroke, and studies in order to study the influence of caffeine on the risk of stroke.

Data collection and analysis: Articles were collected using the selection criteria. Full text was read for quality-review of the articles. SBU 'Granskningsmall för kohortstudier med kontrollgrupp' was used as a help for grading the studies and for summation of the evidence was Gothenburg University 'Sammanfattande Evidensformulär' based on GRADE used.

Main results: Seven prospective cohort studies met the selection criteria. Two studies designed for women suggest that moderate coffee consumption reduces the risk of stroke compared to no consumption and one study found the same association in men. The greatest reduction in risk was observed for consumption of 2-4 cups of coffee per day. Four of the seven studies showed no association between coffee consumption and stroke risk.

Conclusions: A certain reduction in the risk of stroke occurs at a consumption of coffee compared to no coffee consumption. The strength of evidence is low to very low and the association was in particular seen in women.