Abstract

Title: Can an intake of resistant starch type 2 improve blood lipids in adults? – A systematic review article.

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Programme: Programme in dietetics, 180/240 ECTS
Type of paper: Bachelor’s thesis in clinical nutrition, 15 hp
Date: May 25, 2016

Background: Dyslipidemia is strongly associated with an increased risk of developing cardiovascular disease. Several studies conducted on rats show a clear lipid improving effect of resistant starch (RS). The question is if RS has the same effect in humans.

Objective: To investigate whether there is scientific evidence that a higher intake of RS2 could have positive effects on blood lipids.

Search strategy: Searches were conducted using the databases PubMed and Scopus.

Selection criteria: The inclusion criteria were RCT, human studies, adult study participants and studies published in English. Exclusion criteria were study participants with diabetes or prediabetes, studies with several interventions, postprandial studies, and studies where the amount of RS was not specified in grams.

Data collection and analysis: We conducted four searches in the databases Pubmed and Scopus. Then “snowballing” was performed as a complement. This resulted in three articles. The quality of these were examined using SBUs’ review template for randomized trials. Finally the results were combined according to Gothenburg university’s template - ”Underlag för sammanvägd bedömning enligt GRADE” and a final conclusion was drawn.

Results: One of the studies showed a significant (p<0.05) lowering of total cholesterol and LDL associated with intake of RS2. The other two studies showed no significant results.

Conclusion: Resistant starch type two does not seem to affect blood lipids in adults compared to a similar intake of starch or glucose. The evidence for this conclusion is assessed to be moderate (+++).

Key words: Resistant starch, RS, RS2, blood lipids, triglycerides, cholesterol, HDL, LDL.