DIETARY COCOA FLAVANOLS IMPROVE BLOOD VESSEL FUNCTION IN PATIENTS WITH KIDNEY DYSFUNCTION

Highlight
- Ingesting a drink rich in cocoa flavanols improved blood vessel function and reduced diastolic blood pressure in patients with kidney failure.

Heart disease is the leading cause of death in patients with chronic kidney disease.

Washington, DC (December 17, 2015) — Consuming a beverage containing cocoa flavanols improves blood vessel function in patients with kidney failure, according to a study appearing in an upcoming issue of the Clinical Journal of the American Society of Nephrology (CJASN). The findings suggest that the plant-derived compounds may benefit the cardiovascular health of patients with poor kidney function.

Individuals with failing kidneys are at increased risk of developing heart problems, and they’re more likely to die from cardiovascular causes than from any other cause. Lifestyle and dietary modifications to maintain vascular health or reduce disease risk might help protect patients’ heart health, but there are currently limited diet-based therapeutic approaches to counteract cardiovascular disease in patients with kidney failure.

Tienush Rassaf, MD (University Hospital Essen, Germany) and his colleagues tested the potential of cocoa flavanols, a subgroup of plant-derived polyphenols that are present in cocoa and have been shown to have beneficial effects on blood vessel function in individuals with normal kidney function.

The team randomized 57 dialysis patients to ingest either a test beverage rich in cocoa flavanols (900 mg per day) or a control beverage that was free of cocoa flavanols but matched the nutrient content of the test beverage in all other aspects. After 30 days, the investigators found that cocoa flavanol ingestion was well-tolerated by patients and it improved blood vessel function and reduced diastolic blood pressure. No effects were observed in the group that consumed the control beverage.
“Impressively, the degree of reversion of vessel dysfunction was comparable to the effects observed through administering statins or making dietary and lifestyle changes,” said Dr. Rassaf. “Whether this approach also leads to a reduction in mortality is not clear and has to be investigated.”

In an accompanying editorial, Carmine Zoccali, MD and Francesca Mallamaci, MD (CNR-IFC, in Italy) noted that “the burden of cardiovascular disease in dialysis patients is so devastating that a promising intervention like cocoa flavanols deserves full attention by the nephrology community.” They added that if the findings are confirmed in additional studies, they may represent a turning point in patient care.

Study authors include Christos Rammos, MD; Ulrike B. Hendgen-Cotta, PhD; Christian Heiss, MD; Malte Kelm, MD; Werner Kleophas, MD; Frank Dellanna, MD; Gerd R. Hetzel, MD; and Jurgen Floege, MD.

Disclosures: This study was funded by a German Research Foundation Grant (Ra969/7-2 to Tienush Rassaf). This work was, in part, also funded by the European Commission Flaviola Grant FP7-KBBE 226588 (to Tienush Rassaf, Christian Heiss and Malte Kelm). Mars Symbioscience provided the cocoa flavanol test products and analytical standards.

The article, entitled “Vasculoprotective effects of dietary cocoa flavanols in hemodialysis patients: a double-blind, randomized, placebocontrolled trial,” will appear online at http://cjasn.asnjournals.org/ on December 17, 2015. doi: 10.2215/CJN.05560515

The editorial, entitled “Cocoa flavanols: a magic potion for protecting the endothelium in kidney failure?” will appear online at http://cjasn.asnjournals.org/ on December 17, 2015. doi: 10.2215/CJN.12141115

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Founded in 1966, and with nearly 16,000 members, the American Society of Nephrology (ASN) leads the fight against kidney disease by educating health professionals, sharing new knowledge, advancing research, and advocating the highest quality care for patients.

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Facebook: Consuming a beverage rich in cocoa flavanols improves blood vessel function in patients with kidney failure, according to a study in the Clinical Journal of the American Society of Nephrology. The findings suggest that the plant-derived product may help protect the heart health of patients with poor kidney function.

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Burkhard Büscher
Press speaker

Universitätsklinikum Essen (AöR)
Marketing und Kommunikation
Verwaltungsgebäude, 0.48
Hufelandstraße 55
D-45147 Essen

Telefon: +49 201 / 723-2115
E-Mail: burkhard.buescher@uk-essen.de