HIGHER FRUIT AND VEGETABLE CONSUMPTION LINKED TO LOWER RISK OF EARLY DEATH FOR DIALYSIS PATIENTS

Highlight

- Among kidney failure patients on hemodialysis, those who consumed higher amounts of fruits and vegetables had lower risks for dying prematurely—both from cardiovascular and non-cardiovascular causes.

Washington, DC (January 31, 2019) — A new study found that higher consumption of fruits and vegetables may be associated with a lower risk of premature death in patients undergoing maintenance hemodialysis. The findings, which appear in an upcoming issue of the Clinical Journal of the American Society of Nephrology (CJASN), suggest that more studies are needed to fine-tune dietary recommendations for patients with kidney failure.

Higher fruit and vegetable intake is linked with lower cardiovascular and all-cause mortality in the general population, but kidney failure patients on hemodialysis are often discouraged from this type of diet due to its potential to cause a buildup of potassium (which is normally excreted in the urine).

A team led by Giovanni Strippoli, MD, PhD, (Diaverum AB, Sweden and the University of Bari, Italy) Valeria Saglimbene, MScMed, and Germaine Wong, MBBS, PhD (University of Sydney School of Public Health, in Australia) designed a study to evaluate the association of fruit and vegetable intake with all-cause, cardiovascular, and non-cardiovascular mortality among adults treated with hemodialysis.

“Although diet is a key component of self-management and provides an important opportunity for a collaborative approach between patients and healthcare professionals to improve care, there is limited evidence on the impact of diet on patient-relevant outcomes,” said Dr. Saglimbene.

In the study of 8,078 hemodialysis patients who completed food frequency questionnaires, only 4% of patients consumed at least 4 servings of fruits and vegetables per day as recommended in the general population. The team noted that there were 2,082 deaths (954 from cardiovascular causes) over a median follow-up of 2.7 years. Compared with patients who had 0–5.5 servings of combined fruits and vegetables per
week, those who had 5.6–10 servings and those who had more than 10 servings had
10% and 20% lower risks of dying from any cause, respectively, as well as 12% and 23%
lower risks of dying from non-cardiovascular causes.

“These findings suggest that well-meaning guidance to limit fruit and vegetable intake to
prevent higher dietary potassium load may deprive hemodialysis patients of the potential
benefits of these foods; however, intervention trials of fruit and vegetable intake are
needed to support dietary recommendations for hemodialysis patients,” said Prof.
Wong. “Future studies exploring the potential benefits of a whole dietary approach in the
hemodialysis setting are also warranted and we aim to pursue them,” added Prof.
Strippoli.

In an accompanying editorial, Ranjani Moorthi, MD, MPH, MS (Indiana University) noted
that the findings may spur future studies. “The hope is this excellent cohort study will form
the basis of well-designed randomized controlled trials to test the effects of fruits and
vegetables in patients undergoing hemodialysis, so we, their nephrologists, along with
renal dietitians, can provide the details of dietary guidance they deserve.”

Study co-authors include Marinella Ruospo, PhD, Suetonia Palmer, MB ChB, PhD,
Vanessa Garcia-Larsen, PhD, Patrizia Natale, MScMed, Armando Teixeira-Pinto, PhD,
Katrina Campbell, PhD, Juan-Jesus Carrero, PhD, Peter Stenvinkel, MD, PhD, Letizia
Gargano, MSc, Angelo Muro, MD, David Johnson, MBBS, PhD, Marcello Tonelli, MD,
Rubén Gelfman, MD, Eduardo Celia, MD, Tefvik Ecder, MD, Amparo Bernt, MD,
Domingo Del Castillo, MD, Delia Timofte, MD, Marietta Török, MD, Anna Bednarek-
Skublewska, MD, Jan Dulawa, MD, Paul Stroumza, MD, Susanne Hoischen, MD, Martin
Hansis, MD, Elisabeth Fabricius, MD, Paolo Felaco, MD, Charlotte Wollheim, MSc,
Jörgen Hegbrant, MD, PhD, and Jonathan Craig, MB ChB, PhD.

Disclosures: The authors reported no financial disclosures.

The article, entitled “Fruit and Vegetable Intake and Mortality in Adults Undergoing
Maintenance Hemodialysis,” will appear online at http://cjasn.asnjournals.org/ on January

The editorial, entitled “Does an Apple (or Many) Each Day, Keep Mortality Away?” will

The content of this article does not reflect the views or opinions of The American Society of
Nephrology (ASN). Responsibility for the information and views expressed therein lies entirely with
the author(s). ASN does not offer medical advice. All content in ASN publications is for
informational purposes only, and is not intended to cover all possible uses, directions, precautions,
drug interactions, or adverse effects. This content should not be used during a medical emergency
or for the diagnosis or treatment of any medical condition. Please consult your doctor or other
qualified health care provider if you have any questions about a medical condition, or before taking
any drug, changing your diet or commencing or discontinuing any course of treatment. Do not
ignore or delay obtaining professional medical advice because of information accessed through ASN. Call 911 or your doctor for all medical emergencies.

Since 1966, ASN has been leading the fight to prevent, treat, and cure kidney diseases throughout the world by educating health professionals and scientists, advancing research and innovation, communicating new knowledge, and advocating for the highest quality care for patients. ASN has more than 20,000 members representing 131 countries. For more information, please visit www.asn-online.org or contact the society at 202-640-4660.

###

Tweet: Higher fruit and vegetable consumption linked to lower risk of early death for dialysis patients.
#gstrip3

Facebook: A new study found that higher consumption of fruits and vegetables may reduce hemodialysis patients’ risk of premature death. The findings, which appear in the Clinical Journal of the American Society of Nephrology, suggest that more studies are needed to fine-tune dietary recommendations for patients with kidney failure.