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INTESTINAL CALCIUM ABSORPTION MAY IDENTIFY INDIVIDUALS AT RISK OF DEVELOPING KIDNEY STONES

Highlight

 Absorption and excretion of calcium were faster in certain patients with a history of kidney stones.

Washington, DC (June 9, 2016) — Measuring intestinal calcium absorption may help to identify individuals who are prone to develop kidney stones, according to a study appearing in an upcoming issue of the *Clinical Journal of the American Society of Nephrology* (CJASN).

Individuals with hypercalciuria have kidneys that put out higher levels of calcium in urine than normal, which increases their risk of developing kidney stones. Only a portion of hypercalciuric individuals will develop stones, however, and there are no criteria to distinguish them from those who remain free of stones.

To look for such distinguishing factors, Giuseppe Vezzoli, MD (San Raffaele Scientific Institute, in Milan, Italy) and his colleagues evaluated absorption of calcium in the first part of the small intestine as well as urinary excretion of calcium in 172 hypercalciuric stone formers and 36 hypercalciuric patients without a history of kidney stones.

The researchers found that both absorption and excretion of calcium were faster in hypercalciuric stone formers than in hypercalciuric patients without a history of stones.

"To our knowledge this is the first study comparing calcium metabolism in hypercalciuric patients with or without calcium stones," said Dr. Vezzoli. "Its findings identify a characteristic of calcium metabolism that may predispose hypercalciuric patients to calcium stone formation, and highlight the role of intestinal absorption in stone formation."

Study co-authors include Lorenza Macrina, MD, Alessandro Rubinacci, MD, Donatella Spotti, MD, and Teresa Arcidiacono, MD.

Disclosures: The study was supported by grants from the Italian Ministry of University and Scientific Research and from the San Raffaele Scientific Institute.

The article, entitled "Intestinal calcium absorption among hypercalciuric patients with or without calcium kidney stones will appear online at http://cjasn.asnjournals.org/ on June 9, 2016, doi:10.2215/CJN.10360915.

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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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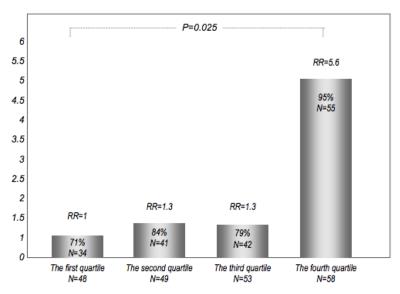
Facebook: Measuring intestinal calcium absorption may help to identify individuals who are prone to develop kidney stones, according to a study in the *Clinical Journal of the American Society of Nephrology*.

&& San Raffaele Scientific Institute news department: ufficio.stampa@hsr.it

Figure: The change of stone risk in hypercalciuric patients is divided according to quartiles of absorption of strontium (a surrogate marker of calcium) measured 30 min after strontium oral load (the first tertile is the lowest tertile of strontium absorption and is

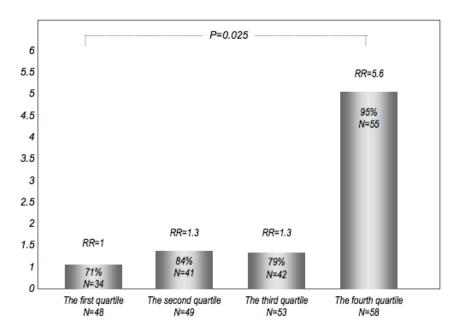
the reference group).

Relative risk (RR) of stones in hypercalciuric patients divided according to the quartiles of strontium absorption



Quartiles of strontium absorption 30 min after the oral load

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