

Warfarin a potential heart-attack risk

August 26 2013



The study has important implications for doctors when prescribing anti bloodclotting drugs and providing dietary advice to patients.

(Medical Xpress)—Vitamin K deficiency caused by the long-term use of warfarin has a wider range of health implications than commonly known, including the calcification of organs that can lead to life-threatening problems like heart attack.

Warfarin is a commonly used medication in the prevention of blood clots but depletes vitamin K levels. However broader effects of the deficiency on various organs and functions are not well understood.

Monash University's Emeritus Professor Wahlqvist, former head of medicine at the Monash Medical Centre, and collaborators reviewed a case of calcification of the coronary artery in a patient after a decade on



<u>warfarin</u>.

"It's commonly believed that the only effect of vitamin K deficiency is blood clotting, but it's becoming increasing clear that vitamin K has many important functions in the body in the bones, the brain, arteries and other tissues and systems," Professor Wahlqvist said.

"In the case of vascular (blood vessel) walls, vitamin K-dependent proteins (VKDPs) help prevent calcification and hardening of the coronary and other arteries.

"When an individual has a Vitamin K deficiency, the body does not mineralise bones properly, resulting in weak bones and osteoporosis. Along with this, calcium is deposited around organs like the heart and kidney. This calcification of organs can lead to <u>organ failure</u> and lifethreatening problems.

"This patient we reviewed had almost none of the conventional risk factors for <u>coronary artery disease</u>, but developed extensive calcification of these and other arteries, putting him at risk."

Professor Wahlqvist from the Department of Epidemiology and Preventive Medicine and the Monash Asia Institute, said the study had important implications for doctors when prescribing anti blood-clotting drugs and providing <u>dietary advice</u> to patients.

"Doctors need to be aware that prescribing warfarin has a wider range of vitamin K deficiency effects," Professor Wahlqvist said.

"Perhaps the answer is to avoid warfarin altogether by using newer treatments which block coagulation without the need to render patients vitamin K deficient.



"In the meantime, important is the consideration of both forms of vitamin K, K-1 and K-2 and foods that are enriched naturally with them.

"Vitamin K-2 is particularly important for blood vessel health and is found in foods like cheese and fermented soy products that can be protective against <u>calcification</u>."

Provided by Monash University

Citation: Warfarin a potential heart-attack risk (2013, August 26) retrieved 23 April 2024 from <u>https://medicalxpress.com/news/2013-08-warfarin-potential-heart-attack.html</u>

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