KAMUT Reduces Cardiovascular Risk in Patients with ACS

May 18, 2015

A second human study focused on the effect of a diet based on KAMUT brand khorasan wheat products compared to modern wheat products found that it reduced cardiovascular risk in participants.

The scientific journal *Nutrients* published the paper, "An Organic Khorasan wheat-based replacement diet improves risk profile of patients with acute coronary syndrome: A randomized crossover trial." The study was conducted in Italy by the University of Florence in collaboration with the Careggi University Hospital of Florence.

"Since cardiovascular disease causes approximately one third of all deaths globally in both developed and developing countries, the next important question was could KAMUT khorasan wheat products provide additional protection in patients with existing chronic disease, like Acute Coronary Syndrome (ACS), who are dependent on drug therapy, to prevent a recurrent cardiovascular event," explained Bob Quinn, PhD, organic farmer and founder of Kamut International.

ACS is the largest contributor to Cardiovascular Disease (CVD) and is associated with atherosclerotic plaque rupture, often resulting in a heart attack. Patients with ACS are at particularly high risk of both fatal and non-fatal recurrent cardiovascular events despite stringent medical therapies (secondary prevention). Given the global impact of CVD, much research has focused on the beneficial effects of easily accessible modifiable risk factors, such as diet and exercise.

The aim of this study was to focus on diet to examine the effect of products made from ancient KAMUT khorasan wheat compared to products made from modern wheat (the control). All the ancient wheat and modern wheat were grown organically. The same mill processed all grains into semi-whole wheat flour, which were used to prepare the finished products. Pasta was prepared from both the KAMUT khorasan wheat and control durum wheat semolina. Bread, biscuits and crackers were made using the KAMUT khorasan and the control soft wheat flour.

The study design was a randomized, double-blinded, crossover trial with two intervention phases. A crossover trial means that each participant was required to eat both the ancient and the modern wheat, but in two different time periods. It was important to compare the different effects of the KAMUT khorasan wheat and control wheat on the same person. As required by a double-blind study, neither the patients nor the doctors knew what kind of wheat was eaten during each time period.

In the study, 22 ACS patients, most of whom had had at least one heart attack (13 men, 9 women), participated. Patients were randomly divided into two groups (11 individuals per group). For the first intervention phase, each group was assigned to consume either the KAMUT khorasan wheat or control products, respectively, for a period of eight weeks. Participants were not permitted to eat other wheat products during the experimental intervention phases. A

washout period of eight weeks then followed, in which participants were permitted to eat all foods according to their "normal eating habits." The second intervention phase of eight weeks started with the group assigned to consume the control products in the first phase, now assigned to consume the KAMUT khorasan products, and vice-versa. Blood analyses were performed at the beginning and at the end of each phase of intervention.

The nutritional analysis found that there were major differences between flour made with KAMUT khorasan wheat and the control wheat. A significantly higher antioxidant content (polyphenols, flavonoids and carotenoids, as well as minerals such as selenium and vanadium) was apparent in the ancient wheat flour with respect to the modern wheat flour.

Regarding the blood analysis, consumption of products made from KAMUT khorasan wheat produced a significant improvement in several key markers in the blood, such as total cholesterol (-6.8%), LDL-cholesterol (-8.1%), glucose (-8%) and insulin (-24.6%), independent from age, sex, traditional risk factors, medication and eating habits. Other results indicated a better antioxidant status with significant reductions in the production of key indicators, reactive oxygen species (ROS) and lipoperoxidation (lipid damage in the membranes of white blood cells). There was also an increase of magnesium in the blood, which is an import mineral for health. A significant reduction in the master pro-inflammatory cytokine marker called Tumor Necrosis Factor-alpha (-34.5%), was shown after eating KAMUT khorasan wheat products but not after eating the control products. This indicates a significant reduction in inflammation in those eating KAMUT brand wheat products.

All of these positive effects could not be attributed to how the grains were grown or processed. Both KAMUT khorasan wheat and modern wheat were organically grown and made into similar semi-whole grain products. Therefore present research points to health-promoting properties that are contained in KAMUT khorasan wheat, not found in commercial modern varieties.

This latest study was initiated based on results from the company's first human study. The first study was conducted in a healthy population (with no prior clinical manifestations of Cardiovascular Disease) and was published in the *European Journal of Clinical Nutrition* (Sofi et al., 2013). The results showed that KAMUT brand khorasan wheat improved the circulatory metabolic, lipid, antioxidant and inflammatory risk factors, which could potentially reduce the risk of developing cardiovascular disease in healthy subjects.

The first study showed that KAMUT khorasan wheat produced a beneficial effect on cardiovascular risk factors (total cholesterol, LDL-cholesterol, blood glucose, total antioxidant capacity, and various pro-inflammatory cytokines) in a healthy population. The present study not only confirms the results of the first study, but also shows an even stronger effect of the KAMUT khorasan wheat based diet in blood markers of patients suffering from a chronic disease (ACS), especially regarding the glucose, the insulin, the LDL and total cholesterol. Statins, beta-blockers and antiplatelet agents (aspirin) were taken, either singularly or collectively, by all the ACS patients to reduce the cardiovascular risk. Given that drug therapy was maintained constant throughout the trial, and no lifestyle changes were implemented, the study permitted the evaluation of beneficial changes attributable to KAMUT khorasan wheat in addition to the medicinal therapy.

“Because of all the drugs that the participants were taking we didn’t really expect any measurable improvement in symptoms with such a small change in diet. We certainly were surprised by the results,” commented Dr. Anne Whittaker.

These results also confirmed what the company observed in our previous study on chronic disease published last year on IBS patients. Additional studies on chronic disease are now ongoing, such as studies of non-celiac gluten sensitivity and diabetes. The wide range and complex positive effects observed, especially the anti-inflammatory properties of KAMUT khorasan wheat, suggest that the health benefits are likely not due to a single component which could be isolated and put into a pill.

Even if much work remains to be done in order to fully understand the link between specific components of the wheat and their beneficial effects in reducing several cardiovascular risk markers, also referred to as the mode of action, the results of the human trials are extremely promising and provide valuable scientific data to support the widely acclaimed benefits of KAMUT khorasan wheat.

“It is of interest that the intake of health-promoting properties can be accomplished in the form of a basic staple food choice, such as wheat, which form the basis of the Mediterranean dietary pyramid,” added Quinn. “This provides a healthy natural means, not only in reducing the risk of chronic disease development, but also towards combatting the already established presence of chronic disease.”

For more information: www.kamut.com

- See more at: http://www.nutraceuticalsworld.com/contents/view_breaking-news/2015-05-18/kamut-reduces-cardiovascular-risk-in-patients-with-acs/#sthash.lNKrlf0d.dpuf