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In The NEWS

Plasma CoQ10 Levels Predict Melanoma Progression



Low levels of plasma coenzyme Q10 (CoQ10) are associated with an increased risk of melanoma metastasis, or spread to other locations in the body, according to a recent study from Rome, Italy.*

The antioxidant CoQ10 is decreased in the blood of patients with various cancers, including melanoma. Because melanoma is notoriously aggressive and difficult to treat, accurate measures of prognosis are sorely needed to ensure proper therapy and monitoring. The Italian study evaluated the efficacy of CoQ10 level as a predictor of melanoma progression.

Between 1997 and 2004, investigators enrolled 117 men and women with melanoma but without metastases. The patients had an average age of 55 years; 79 had early-stage disease and 38 had late-stage disease. The control subjects were 125 volunteers without melanoma who were matched for sex, age, occupation, and place of birth. Plasma CoQ10 level was measured in each subject, and a low level was defined as less than 0.6 mg/L.



CoQ10 levels were significantly lower in patients compared to controls, as well as in patients who developed metastases compared to those who did not. After 34 months of monitoring, patients with low plasma CoQ10 levels had a significant, eightfold higher risk of metastasis than patients with higher levels. During the study, 35 of 82 patients (43%) with low CoQ10 levels developed metastases, compared to only 3 of 35 patients (9%) with higher CoQ10. Cancer progression occurred sooner in patients with low CoQ10 levels (average 47 months) than in those with higher levels (average 82 months). Of the 82 patients with low CoQ10 levels, 17 died during the study, compared to none of the 35 patients with higher CoQ10. CoQ10 levels did not vary by sex.

Levels of CoQ10 correlated well with tumor thickness, which is currently the best indicator of melanoma progression. Specifically, lower CoQ10 levels correlated with increased tumor thickness and poorer prognosis.

Because of its usefulness and simplicity, plasma CoQ10 level may become a new prognostic factor for estimating the risk of melanoma progression. Further studies are needed to determine whether CoQ10 supplementation may improve outcomes in people with melanoma.

—Laura J. Ninger, ELS

Reference

* Rusciani L, Proietti I, Rusciani A, et al. Low plasma coenzyme Q10 levels as an independent prognostic factor for melanoma progression. *J Am Acad Dermatol.* 2006 Feb;54(2):234-41.

Sunscreens Fail to Protect Against Harmful UVA Rays



Life Extension has long warned its members that commercial sunscreens provide only limited protection against potentially lethal ultraviolet (UV) radiation.

Now two of the nation's foremost consumer law firms have filed coordinated, class-action lawsuits in California Superior Court in Los Angeles, charging that sunscreens by leading makers such as Coppertone, Banana Boat, and Hawaiian Tropic do not protect against harmful solar radiation and create a false sense of security that actually endangers sunscreen users.*

The lawsuits allege systematic fraud, false advertising, and persistently misleading claims that exaggerate the ability of sunscreens to protect against the sun and reduce the risk of cancer and other skin ailments.

As Life Extension recently warned (see "The Sunscreen Paradox," Life Extension, June 2006), the FDA's flawed sun protection factor (SPF) rating system designates protection against UVB rays but not UVA rays.

According to the complaint, "UVB rays have been shown to cause [sunburn], premature aging of the skin, and the development of skin cancer . . . UVA rays are also harmful and have been shown to damage the DNA in skin cells, contribute to premature aging of the skin, and cause the development of certain forms of skin cancer." The complaint notes that "existing research indicates that the level of protection provided against UVA rays by Defendants' sun protection products, particularly those with high SPF designations, is significantly less than the protection provided against the burning effects of UVB rays."

The complaint goes on to state that consumers have purchased sunscreen products "under the false impression that they are receiving protection from all of the sun's harmful ultraviolet rays" and that the "health costs to . . . the general public as a result of this deceptive conduct have been staggering."

According to the Skin Cancer Foundation, more than 1.5 million skin cancer cases are diagnosed annually in the US—more than breast, prostate, lung, and colon cancer combined. More than 8,000 Americans die each year from skin cancer.

The lawsuits seek an injunction on claims made by sunscreen makers on their product labels, websites, and advertising, as well as compensation for consumers and other remedies, including an industry-financed public education program on sun protection.

—Matt Sizing

Reference

* Available at: http://www.lerachlaw.com/cases/sunscreen/amended_complaint.pdf. Accessed April 20, 2006.

Vitamins C and E, Ibuprofen May Prevent Alzheimer's



Daily intake of vitamins C and E along with ibuprofen significantly lowers the risk of developing Alzheimer's in patients at high risk for the disease, according to researchers at Johns Hopkins University in Baltimore.*

This combination particularly benefits people with a certain variant of the gene for apolipoprotein (APOE-4), which is a risk factor for Alzheimer's.

Using a longitudinal study design, Dr. Majid Fatuhi and his research team followed nearly 5,000 elderly residents of Cache County, Utah, for eight years. The scientists assessed the participants' consumption of vitamin C, vitamin E, and ibuprofen, and identified 127 participants who regularly used all three agents. This group showed significantly less decline in their scores on mental performance tests.

Study participants carrying the APOE-4 genetic variant demonstrated the greatest benefits from the vitamin C, vitamin E, and ibuprofen combination. According to the researchers, this subset of individuals in their late sixties and seventies showed no decline in cognitive function over the eight-year study period. By contrast, those who took just one of these agents saw their memory deteriorate over the study period.

Dr. Fatuhi noted that for people at low risk for Alzheimer's, taking vitamins C and E can reduce the risk of contracting the disease. For those at high risk of developing Alzheimer's—as determined by family history or early memory loss—the combination of vitamin C, vitamin E, and ibuprofen may be a more powerful risk-reduction strategy. Vitamins C and E may help

people avert Alzheimer's by mitigating inflammation, while ibuprofen may act by reducing the amount of damaging amyloid beta protein in the brain.

—Elizabeth Wagner, ND

Reference

* Available at: <http://go.reuters.com/newsArticle.jhtml?type=healthNews&storyID=11789992>. Accessed April 27, 2006.

Folate, Vitamin B12 Decrease Breast Cancer Risk



Plentiful intake of folate and vitamin B12 may help prevent breast cancer, according to a recent report published in *Cancer Epidemiology Biomarkers and Prevention*.*

A population-based, case-control study evaluated 475 hospitalized women in Mexico City who had been diagnosed with breast cancer. The women ranged in age from 23 to 87, with a median age of 53 years. Each woman was interviewed to obtain a history of her typical diet and her risk factors for breast cancer. The control group consisted of 1,391 healthy women from the Mexico City area ranging in age from 18 to 82, with a median age of 49 years. The control group likewise provided data on their diet and risk factors for breast cancer.

Analyzing the data, the researchers noted that women with the highest level of folate intake demonstrated a 36% lower risk of breast cancer. Even more dramatically, women with the highest intake of vitamin B12 had a 68% decreased risk of breast cancer. The research team noted that folate's protective effect was more pronounced in women who also consumed a high intake of vitamin B12. Furthermore, they found that the cancer-preventive benefits of folate and vitamin B12 were more dramatic in postmenopausal women than in premenopausal women.

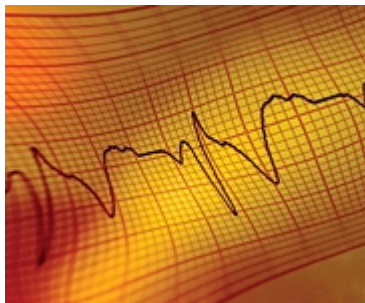
Optimizing folate and vitamin B12 intake may thus provide a safe, effective way to help prevent breast cancer, particularly in postmenopausal women. These B vitamins are also known to support good health by promoting healthy homocysteine levels.

—Christie C. Yerby, ND

Reference

* Lajous M, Lazcano-Ponce E, Hernandez-Avila M, Willett W, Romieu I. Folate, vitamin B(6), and vitamin B(12) intake and the risk of breast cancer among Mexican women. *Cancer Epidemiol Biomarkers Prev*. 2006 Mar;15(3):443-8.

Prehypertension Greatly Increases Cardiovascular Risk



Prehypertension, or blood pressure levels at the upper end of the normal range, can increase the risk of cardiovascular disease by up to threefold, according to a recent study published in the *American Journal of Medicine*.*

Prehypertension is defined as blood pressure between 120/80 and 139/89 mmHg. Levels of 140/90 mmHg and above are considered high blood pressure, which is a known risk factor for heart disease and stroke. Until recently, however, data on the health risks associated with prehypertension have been incomplete.

Dr. Abhijit V. Kshirsagar and his colleagues at the University of North Carolina conducted a prospective study of 8,960 middle-aged adults, aged 45-64, who were enrolled in the Atherosclerosis Risk in Communities study. The researchers monitored the relationship between the participants' blood pressure values and cardiovascular events for an average of 11.6 years.

During this follow-up period, 772 new cardiovascular disease events were observed within the group. These included documented or suspected myocardial infarction, ischemic stroke, and various cardiac procedures, including coronary artery bypass graft, angioplasty, and stenting.

Prehypertension was associated with a 233% greater risk of cardiovascular events, and was especially dangerous in blacks, diabetics, and obese individuals, increasing risk in these groups by 329%, 410%, and 356%, respectively. Maintaining optimal blood pressure levels below 120/80 mmHg could prevent nearly 30% of new cardiovascular events in the study participants, according to the research team.

Many patients with prehypertension may be able to improve their blood pressure using lifestyle changes such as weight loss and dietary modification, thus improving their cardiovascular risk profiles while avoiding the undesirable side effects associated with prescription hypertension medications.

—John Otrompke

Reference

* Kshirsagar AV, Carpenter M, Bang H, Wyatt SB, Colindres RE. Blood pressure usually considered normal is associated with an elevated risk of cardiovascular disease. *Am J Med.* 2006 Feb;119(2):133-41.

Early Diagnosis Critical for Surviving Prostate Cancer



Early diagnosis of prostate cancer is necessary to allow curative surgery, according to a study from Italy.*

New research findings show that when it is detected early, localized cancer is curable by surgery alone, and even cancer that has spread beyond the prostate gland may be cured by surgery. When cancer recurs or lymph node biopsies are positive, early treatment with hormonal therapy is beneficial.

The Italian researchers studied 729 patients with prostate cancer who had previously undergone radical prostate removal and pelvic lymph node removal. The patients without lymph node involvement underwent surgery alone, while those with positive lymph nodes received hormonal therapy along with surgery. A subgroup of 116 had a high level of cancer aggressiveness (as determined by a Gleason score of 8-10, a system of grading prostate cancer cells based on their microscopic appearance), and this group was monitored for an average of four years to determine outcomes.

Long-term results varied significantly depending on the cancer's severity. Five-year survival rates were 100%, 65%, and 11% for increasingly severe tumor stages (pT2, pT3a, and pT3b, respectively). Likewise, survival at five years declined dramatically, from 72% for men with a Gleason score of 8 to 38% for men with a Gleason score of 9. Patients with positive lymph nodes had a five-year survival of 61%. In statistical analysis, the only factor that predicted cancer recurrence was the extent of the tumor expressed as disease stage, with worse outcomes as cancer invaded the seminal vesicles, the glands on either side of the bladder.

Screening of prostate-specific antigen (PSA) is generally recommended to help detect prostate cancer at an early stage, thus decreasing the likelihood of positive lymph nodes and allowing for early surgical intervention. The results of this study strongly confirm the value of routine prostate screening and demonstrate that men whose prostate cancer is detected early have a significantly greater likelihood of survival.

—Laura J. Ninger, ELS

Reference

* Serni S, Masieri L, Minervini A, Lapini A, Nesi G, Carini M. Cancer progression after anterograde radical prostatectomy for pathologic Gleason score 8 to 10 and influence of concomitant variables. *Urology*. 2006 Feb;67(2):373-8.

Vitamin D and Calcium Reduce Diabetes Risk



High intake of vitamin D and calcium may reduce the risk of type II diabetes in women, according to a large long-term study.*

A total of 83,779 healthy women, with an average age of 46, were monitored for 20 years. Consumption of vitamin D and calcium were calculated separately for dietary intake, supplement use, and total intake from all sources. During the study, 4,843 new cases of type II diabetes were recorded.

Women who took the highest amount of vitamin D in the form of supplements had a 13% reduction in their risk for type II diabetes compared to women who took the least vitamin D.

Women who had the highest intake of calcium from supplements had an 18% reduction in their risk of diabetes compared to those with the lowest calcium intake. Likewise, the risk of diabetes was 21% lower for women who took the highest amount of total calcium (from all sources) as opposed to the lowest amount.

For vitamin D plus calcium together, those women with the highest combined intake (greater than 800 IU of vitamin D and 1200 mg of calcium daily) had the lowest risk of diabetes—a 33% reduction compared to women with the lowest intake of these nutrients.

No significant effects on diabetes risk were found for dietary vitamin D intake or dietary calcium intake; in other words, the beneficial effects of vitamin D and calcium were greatest for supplementation rather than intake from food sources.

If future studies confirm the findings in this report, women will have another good reason to supplement with vitamin D and calcium—as an easy, inexpensive way to lower their risk for type II diabetes.

—Laura J. Ninger, ELS

Reference

* Pittas AG, Dawson-Hughes B, Li T, et al. Vitamin D and calcium intake in relation to type 2 diabetes in women. *Diabetes Care*. 2006 Mar;29(3):650-6.

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