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Your Gateway to Better Health!

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Editorial

Welcome to our 10th year of publication. Publishing International Health News has been and still is an exciting adventure. There is so much good, credible health information out there and we enjoy the opportunity of bringing it to you in a useful and understandable format. Ten years of research has accumulated a great deal of information in our archives. This, in a way, is both good and bad. The good part is that we are sitting on a virtual wealth of unique, reliable health information that you can't find anywhere else. The bad part is that it is getting increasingly difficult to find what you are looking for in our database because of the sheer volume of data. Therefore, our major project for this coming year will be to assemble it all into an easily accessible database. It will be a big job, but the results should be spectacular.

With this first issue of the third millennium we are also launching a brand new addition to IHN, **The Afib Report**. Lone atrial fibrillation seems to be reaching epidemic proportions, at least in the western world. There is no safe, effective medical treatment for this disorder with the result that millions of people, many of our subscribers among them, are living in constant fear of having another arrhythmia attack and, as a consequence, experience a much reduced quality of life. We believe there are solutions to the problem and that **The Afib Report** in combination with our LAF Forum (<http://www.yourhealthbase.com/lafforum.html>) will help provide them.

However, neither our database project nor **The Afib Report** will detract from our ongoing efforts to bring you the latest developments in health, nutrition and medicine. In this issue we report on an exciting new possibility in the treatment of Alzheimer's disease, caution against the possible, but entirely avoidable side effects of diuretics, and provide evidence that magnesium supplementation may be highly beneficial for heart disease patients. We also report that mixed tocopherols are a better source of vitamin E than just alpha-tocopherol on its own; that using sunscreens with a high SPF may be counterproductive; and that the current American dietary guidelines are inadequate. All good, solid information to give you a healthy start on the New Year.

Yours in health,
Hans Larsen

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LETTERS TO THE EDITOR

After reading an article in a recent magazine I would like to know if there is any information on Evolus, the first milk designed to lower blood pressure in just seven weeks. Is it available in the United States yet?

GH, USA

Editor: *Evolus* was developed by the Finnish dairy group Valio. It is available in Finland,

Sweden and Estonia, but as far as I know, not yet in North America. Evolus is similar to the Japanese product Calpis that came on the market several years ago. You can read more about Calpis and other blood pressure lowering techniques at our website www.yourhealthbase.com/hypertension.html.

How soon after supplementation with folic acid will a reduction of homocysteine occur?

TB, USA

Editor: It is best to take folic acid together with vitamins B12 and B6. A combination of these three vitamins could be expected to reduce homocysteine to an acceptable level and eliminate or ameliorate endothelial dysfunction (an early manifestation of atherosclerosis) within 4 to 5 weeks. It may take substantially longer (perhaps a couple of years) to reverse other effects of high homocysteine levels such as abnormal exercise electrocardiograms and other symptoms of atherosclerosis.

What is the optimal level of testosterone for a 47-year-old male? Would testosterone supplementation worsen gynecomastia?

TS, USA

Editor: The average testosterone level in men at 40 years of age is around 23 nanomoles/liter (6.7 nanograms/milliliter). This declines to an average of 13 nanomoles/liter for men 75 years or older. A testosterone deficiency can certainly cause gynecomastia (enlargement of the breasts) and it is possible that testosterone injections could help. I have not seen any information to the effect that testosterone injections would cause or worsen gynecomastia. Many pharmaceutical drugs (cimetidine for one) can also cause this condition. For more information on testosterone you may want to read the excellent article in the July 22, 2000 issue of the "New Scientist".

I was wondering what would the effects be of not having enough vitamin B12. I have heard that it can be potentially fatal. It was compared to a car running without oil. Is this true?

NK, USA

Editor: A vitamin B12 deficiency has been linked to many diseases including pernicious anemia, depression, mental confusion, diabetic neuropathy, multiple sclerosis, and tinnitus. So yes, an adequate intake of vitamin B12 is extremely important. The recommended dosage in deficiency states is 2000 mcg/day for at least a month followed by 1000 mcg/day. Sublingual tablets or injections (once a week or once a month) are best.

ABSTRACTS

Antibiotic combats Alzheimer's disease

NEW ORLEANS. Researchers from the Massachusetts General Hospital provided some welcome news for Alzheimer's patients at a recent meeting of the Society for Neuroscience. Alzheimer's disease is characterized by an abnormal accumulation of beta amyloid plaque in the brain. The researchers discovered that zinc and copper are intimately involved in the processes leading to the accumulation and actually form part of the accumulation. They reasoned that if they could find a drug that could bind to the copper and zinc and eliminate them from the amyloid deposits then the plaques themselves might dissolve and disappear. They

found their "magic bullet" in the antibiotic clioquinol. Clioquinol was able to dissolve amyloid deposits in postmortem brain tissue from people who died with Alzheimer's disease. The researchers also found that clioquinol inhibited plaque formation in mice engineered to develop Alzheimer's-like deposits. A second study concluded that clioquinol was able to clear up plaques in mice that had already developed substantial deposits. A clinical trial aimed at determining whether clioquinol can help people suffering from Alzheimer's is now underway. The researchers caution that taking clioquinol can result

in an acute vitamin B12 deficiency so supplementation may be necessary.

Helmuth, Laura. An antibiotic to treat Alzheimer's? Science, Vol. 290, November 17, 2000, pp. 1273-74

More on breast cancer and paroxetine

TORONTO, CANADA. In the August 2000 issue of IHN we reported on the findings of Dr. Michelle Cotterchio and colleagues (*New England Journal of Medicine*, Vol. 342, June 29, 2000, p. 2003) to the effect that the use of the antidepressant paroxetine (Paxil) may increase the risk of breast cancer by a factor of seven. If confirmed these findings would almost certainly lead to a caution against prescribing paroxetine to women. Not surprisingly, Dr. Cotterchio's report has caused a considerable stir within the medical and pharmaceutical communities. The December issue of the *American Journal of Epidemiology* contains two letters (one from the manufacturer of paroxetine, SmithKline Beecham Pharmaceuticals) that question the validity of Dr. Cotterchio's conclusions.

The authors of both letters point out that the number of cases of possible paroxetine-related breast cancer was small (9 cases and 1 control) and the SmithKline Beecham letter also makes

the observation that most of the patients who had taken paroxetine had previously been exposed to fluoxetine (Prozac). Dr. Cotterchio replies that her report concluded that "use of paroxetine may be associated with a substantial increase in breast cancer" and that future studies would be required in order to confirm this. She also reiterates that, while she and her team do not suggest that paroxetine is a carcinogen (cancer initiator), they do believe that it could well be a promoter of breast cancer. She points out that animal studies support the hypothesis that antidepressants may be tumor promoters. It would seem that the final conclusion on the possible relationship between paroxetine and breast cancer must await the completion of the larger study.

Antidepressant medication use and breast cancer risk. *American Journal of Epidemiology*, Vol. 152, December 1, 2000, pp. 1104-05 (letters to the editor)

Magnesium benefits heart patients

LOS ANGELES, CALIFORNIA. The health of the lining (endothelium) of the blood vessels is crucial to cardiovascular health. There is considerable evidence that a dysfunction of the endothelium can lead to atherosclerosis and subsequent coronary artery disease (CAD). Researchers at the Cedars-Sinai Medical Center now report that oral magnesium supplementation can substantially reduce endothelial dysfunction and improve exercise tolerance in CAD patients. The randomized, prospective, double blind, placebo-controlled trial involved 50 patients (41 men and 9 women with a mean age of 67 years) who had been diagnosed with CAD either by angiography or after having had a heart attack. Initial evaluation of the patients showed that 72 per cent of them had a lower than normal tissue magnesium level. The tissue magnesium level was measured in sublingual epithelial cells scraped from under the tongue or from between the gums and the upper or lower lips. Magnesium levels measured in sublingual cells have been

found to correlate well with levels found in heart tissue.

The patients were randomized to receive either a placebo or 365 mg of elemental magnesium (in the form of oxide and carbonate) daily. After six months tissue magnesium concentration was measured again, a treadmill test was performed, and endothelial function was evaluated using ultrasound. Patients in the magnesium group increased their intracellular magnesium level by about 10 per cent to reach the lower limit of the normal range. Endothelial function (flow-mediated vasodilation measured at the brachial artery) improved by 25 per cent in the magnesium group as compared to a 4.5 per cent decline in the placebo group over the six-month period. The magnesium supplemented group also performed significantly better on the treadmill test than did the placebo group. Not only did they improve their exercise duration as compared to baseline and the placebo group, but it was also highly significant that none of them experienced an

arrhythmia during the test whereas four patients in the placebo group did.

The researchers suggest that magnesium may protect the heart against the detrimental effects of a calcium overload and may improve intracellular ATP production and glucose use. They conclude that oral magnesium supplementation improves exercise tolerance and endothelial function in

coronary artery disease patients. NOTE: This study was partially funded by Asta Medica Company, Inc. (Vienna, Austria) the manufacturer of the magnesium supplement.

Shechter, Michael, et al. Oral magnesium therapy improves endothelial function in patients with coronary artery disease. Circulation, Vol. 102, November 7, 2000, pp. 2353-58

Schizophrenia and lung cancer

VICTORIA, CANADA. Several studies have shown that schizophrenics tend to smoke far more than other people and yet lung cancer rates are much lower than in the general population whether smokers or not. Drs. Abram Hoffer and Harold Foster now propose a fascinating hypothesis to explain this phenomenon. Dr. Hoffer MD, a practicing psychiatrist, has treated some 4000 schizophrenic patients since 1952 and observed that only one per cent of them also had cancer. Dr. Foster, a medical geographer, has found that schizophrenics tend to have very low levels of selenium and the body's natural antioxidant, glutathione peroxidase.

Drs. Hoffer and Foster now propose that schizophrenia is associated with high blood levels of the hallucinogen adrenochrome, which is formed by oxidation of adrenaline (epinephrine). The low antioxidant status of schizophrenics worsens their condition because they are unable to prevent the oxidation. The excessive conversion of adrenaline to adrenochrome tends to make schizophrenic patients adrenaline deficient. This in turn may explain why they tend to smoke more – nicotine increases adrenaline turnover in the brain. Thus smoking may actually be a form of self-medication.

Dr. Hoffer has had excellent results by treating schizophrenics with high doses of niacin (vitamin

B3) and ubiquinone (coenzyme Q10) which both lower elevated adrenochrome levels.

To explain the abnormally low cancer rates among schizophrenia patients Drs. Hoffer and Foster suggest that elevated adrenochrome levels may protect against tumor development. Parnate, an antidepressant, encourages adrenochrome production and has halted at least one case of brain cancer. A new drug, Intrados, which contains cisplatin and adrenaline, is currently being tested with excellent results in the treatment of liver cancer. Dr. Hoffer speculates that cisplatin, a powerful oxidant, rapidly converts the adrenaline to adrenochrome which then destroys or at least contains the liver tumor. The Intrados gel is injected directly into the tumor.

In conclusion, the new hypothesis suggests that schizophrenia is linked to excessive levels of adrenochrome, which can be reduced by treatment with niacin and coenzyme Q10. Conversely, high adrenochrome levels may help retard tumor growth and may be induced by treatment with drugs that promote the oxidation of adrenaline to adrenochrome.

Hoffer, Abram and Foster, Harold D. Why schizophrenics smoke but have a lower incidence of lung cancer: implications for the treatment of both disorders. Journal of Orthomolecular Medicine, Vol. 15, No. 3, Third Quarter 2000, pp. 141-44

Digoxin may worsen atrial fibrillation

ANN ARBOR, MICHIGAN. A recent study of coronary artery bypass surgery patients reached the surprising conclusion that patients treated with digoxin (digitalis, Lanoxin) were almost three times more likely to develop atrial fibrillation after their operation than were patients given a placebo. Researchers at the University of Michigan Medical Center now confirm the deleterious effects of digoxin. Their study involved 38 patients who were to undergo

radiofrequency catheter ablation of paroxysmal supraventricular tachycardia. Nineteen of the patients had been taking 0.25 mg/day of digoxin for at least 14 days prior to the surgery while the remaining 19 (control group) had not taken any anti-arrhythmic medicine.

After the operation a short episode of atrial fibrillation was induced in all patients through electrical pacing of the atrium. The researchers noted a significant shortening in the effective

refractory period (ERP) in both groups after the induced atrial fibrillation episode, but the shortening was significantly greater in the digoxin group. NOTE: The refractory period is the time of recovery needed for a nerve cell that has just transmitted a nerve impulse or for a muscle fiber that has just contracted.

The researchers conclude that digoxin exacerbates the shortening of atrial ERP and predisposes patients to further atrial fibrillation attacks subsequent to an initial attack. They point

out that digoxin has already been found to be deleterious to patients who suffer from the vagal type of atrial fibrillation. This new study would indicate that digoxin might promote atrial fibrillation not only in vagal type patients, but indeed among the general population of atrial fibrillation patients.

Sticherling, Christian, et al. Effects of digoxin on acute, atrial fibrillation – induced changes in atrial refractoriness. Circulation, Vol. 102, November 14, 2000, pp. 2503-08

Echinacea safe in pregnancy

TORONTO, CANADA. Echinacea (*Echinacea augustifolia* and *Echinacea purpurea*) is among the most popular herbal medicines used in North America. It is widely used to prevent and treat colds and other upper respiratory tract ailments. Echinacea is generally considered safe although not recommended for continuous use. Researchers at the University of Toronto and the Canadian College of Naturopathic Medicine have just released the results of a study designed to investigate the safety of taking echinacea during pregnancy. The study involved 206 women who had used echinacea during their pregnancy (54 per cent during the first trimester) and 206 controls matched for age and use of alcohol and cigarettes. Capsules or tablets were used by 58 per cent of the echinacea users and tinctures by 38 per cent. The usual dosage was 250-1000

mg/day in capsule or tablet form and 5 to 10 to a maximum of 30 drops per day of the tincture.

There were 195 live births and 13 spontaneous abortions among the echinacea users as compared to 198 live births and 7 spontaneous abortions among the controls. There were six major malformations among babies born to the "echinacea mothers" as compared to seven among the controls. The researchers conclude that the use of echinacea during pregnancy is not associated with an increased risk of giving birth to a baby with major malformations. They also noted that the self-reported efficacy for echinacea for upper respiratory tract ailments was over 80 per cent in the user group.

Gallo, Michael, et al. Pregnancy outcome following gestational exposure to echinacea. Archives of Internal Medicine, Vol. 160, November 13, 2000, pp. 3141-43

Thiamin and congestive heart failure

ZURICH, SWITZERLAND. Diuretics such as furosemide (Lasix) are universally used in the treatment of hypertension and congestive heart failure. Medical researchers at the Zurich University Hospital now warn that the use of diuretics may lead to a thiamin (vitamin B1) deficiency that in turn may further impair heart function. The researchers cite several recent studies that have clearly established an association between diuretics and urinary thiamin loss. They also point to other studies that have found that 50 per cent of elderly people and 80 per cent of heavy alcohol users suffer from a thiamin deficiency even without taking diuretics. A very recent study concluded that injection of 200 mg/day of thiamin followed by six weeks of oral supplementation with 200 mg/day improved

the heart function very significantly in heart failure patients taking diuretics (left ventricular ejection fraction increased by 22 per cent).

The use of diuretics has also been linked to an increase in homocysteine levels and a decrease in magnesium levels. Magnesium is very important for heart health and is also necessary in order to convert thiamin to its active form (thiamin pyrophosphate). The Swiss researchers make the interesting observation that poor appetite is a powerful indicator of a thiamin deficiency in elderly patients with congestive heart failure. They suggest that supplementation with 20-50 mg/day of thiamin should be tried in elderly heart failure patients. This intervention is inexpensive, safe and usually shows results within a few days. They also suggest that supplementation with folic

acid and magnesium may be beneficial in order to counteract the homocysteine increase and magnesium depletion often accompanying diuretic use. [52 references]

Suter, Paolo M. and Vetter, Wilhelm. Diuretics and vitamin B1: are diuretics a risk factor for thiamin malnutrition? Nutrition Reviews, Vol. 58, October 2000, pp. 319-23

IGF-1 and cancer

BRISTOL, UNITED KINGDOM. Several studies have shown powerful associations between blood levels of insulin-like growth factor-I (IGF-1) and the risk of colon cancer, prostate cancer, and premenopausal breast cancer. As a matter of fact, recent evidence indicates that high IGF-1 levels may be more important than other previously reported risk factors for cancer. IGF-1 is released by human growth hormone and stimulates growth throughout fetal and child development. IGF-1 in the body is normally tightly bound to a large protein molecule (IGF binding protein-3) and there is evidence that high levels of IGF binding protein-3 protect against the development of certain cancers.

A distinguished group of medical researchers at the University of Bristol now voice concern about the increasing use of IGF-1 and growth hormone

enhancers by body builders and elderly people trying to recapture their vanishing youth. They suggest that IGF-1 may increase both cell turnover and the susceptibility of cells to become cancerous. They also point to recent evidence that indicates that IGF-1 prevents the programmed death (apoptosis) of cancer cells. The researchers warn that people using growth hormone and IGF-1 enhancers are unlikely to be aware of their potentially harmful effects.

The pharmaceutical industry is well aware of the increasingly clear association between IGF-1 and cancer. Chemotherapeutic drugs are being developed to block the activity of IGF-1 or enhance the activity of IGF binding protein-3.

Smith, George Davey, et al. Cancer and insulin-like growth factor-I. British Medical Journal, Vol. 321, October 7, 2000, pp. 847-48 (editorial)

Update on DHEA (dehydroepiandrosterone)

HONOLULU, HAWAII. DHEA (dehydroepiandrosterone) and its active metabolite DHEAS (DHEA sulfate) are hormones primarily formed in the adrenal cortex (men also generate DHEA in their testicles). DHEA and DHEAS serve as precursors for both male and female sex hormones; young adults secrete about 4 mg of DHEA and 25 mg of DHEAS per day. The output of DHEA and DHEAS is highest between the ages of 20 and 30 years and then starts declining. By age 80 years the output is only 10-20 per cent of the peak output. This decline in DHEA with age has led to speculation that DHEA supplementation may be useful in the treatment of age-related diseases.

Dr. Joseph Pepping, Pharm.D. of the Kaiser Permanente has just released a thorough review of the current status of DHEA and DHEAS. There is now clinically substantiated evidence that DHEA replacement therapy may be useful in patients who have abnormally low levels due to chronic disease, suffer from adrenal exhaustion or have undergone therapy with corticosteroids. It may also be useful in the treatment of systemic lupus erythematosus and severe depression, can

improve bone density in postmenopausal women, and has been found to combat fatigue and depression in HIV patients. Epidemiological studies have observed that low DHEA levels are associated with a higher incidence of cancer, cardiovascular disease (in men only), Alzheimer's disease, immune function suppression, and progression of HIV infections.

The daily dose of DHEA required by healthy people over 40 years of age in order to increase DHEA levels to those of adults 20 to 30 years of age is about 20-50 mg for men and 10-30 mg for women. Daily doses in the range of 200 mg or higher may be required in the treatment of lupus and depression.

Dr. Pepping warns that DHEA supplementation can lead to increased hair growth and oily skin in women. DHEA supplementation is contraindicated in people with sex hormone responsive cancers such as breast, ovarian, endometrial, and prostate and should not be undertaken in men with benign prostate enlargement or a family history of prostate cancer. He concludes that DHEA supplementation may be beneficial in some

cases, but should never be undertaken without direct medical supervision. The long-term effects of DHEA supplementation are unknown. [48 references]

Pepping, Joseph. *DHEA: dehydroepiandrosterone. American Journal of Health-Systems Pharmacy, Vol. 57, November 15, 2000, pp. 2048-56*

Are dietary guidelines inadequate?

BOSTON, MASSACHUSETTS. The *Dietary Guidelines for Americans* and the food guide pyramid were developed as a means of guiding Americans toward a healthier diet that would help prevent major chronic diseases such as cancer and heart disease. Researchers at the Harvard Medical School have just completed a study aimed at determining whether this goal is actually being achieved. The study involved over 38,000 male health professionals and almost 68,000 female nurses. The nurses completed detailed questionnaires on diet and chronic disease risk factors in 1984 and again in 1986 and 1990. By 1996 1365 had suffered a heart attack or a stroke and 5216 had developed cancer. The male health professionals completed their questionnaires in 1986 and again in 1990. By 1996 1092 had suffered a stroke or a heart attack and 1661 had developed cancer.

The researchers compared the dietary information with the incidence of cancer and heart disease and found only a relatively small benefit in

following a diet based on the *Dietary Guidelines for Americans* and the food guide pyramid. The men who followed the guide almost all the time had a 28 per cent lower incidence of cardiovascular disease, but no reduction in cancer risk as compared to men who followed the guidelines 50 per cent or less of the time. Among the women, the ardent followers of the guidelines reduced their risk of cardiovascular disease by only 14 per cent and saw no decrease in cancer risk when compared to women who did not pay much heed to the guidelines (highest quintile compared to lowest quintile). The researchers conclude that the current official dietary guidelines are ineffective in reducing the incidence of major chronic diseases and need to be redesigned. [52 references]

McCullough, Marjorie L., et al. *Adherence to the Dietary Guidelines for Americans and risk of major chronic disease in women and men. American Journal of Clinical Nutrition, Vol. 72, November 2000, pp. 1214-22 and 1223-31*

Gamma-tocopherol more effective than alpha-tocopherol

BERKLEY, CALIFORNIA. Gamma-tocopherol is the most common form of vitamin E in the diet and constitutes 30-50 per cent of total vitamin E levels in human skin, muscle, and adipose (fat) tissue. Alpha-tocopherol, on the other hand, is much less common in the diet, but is the main and, in many cases, the only component of vitamin E supplements. Dr. Bruce Ames and his colleagues at the University of California now report that gamma-tocopherol may be significantly more effective in combating cancer, heart disease, and neurodegenerative disease than is alpha-tocopherol. Experimenting on human macrophages (scavenger cells) and cells from human lung tissue (epithelial cells) they found that gamma-tocopherol is at least three times more effective in inhibiting the synthesis of prostaglandin E2 (PGE2) than is alpha-tocopherol. As a matter of fact, alpha-tocopherol showed no inhibiting effects in epithelial cells at all. PGE2 plays a key role in promoting inflammation and its associated diseases such as

cancer and cardiovascular disease. These findings, combined with recent evidence that blood plasma concentrations of gamma-tocopherol, but not alpha-tocopherol, are inversely correlated with the incidence of heart disease, prompt the researchers to speculate that gamma-tocopherol may actually be more important in disease prevention than is alpha-tocopherol. They conclude "It may be that the inclusion of both alpha- and gamma-tocopherols in vitamin E supplements is more effective in human disease prevention, especially considering that alpha-tocopherol supplementation depresses gamma-tocopherol in human plasma and adipose tissue." [55 references]

Jiang, Qing, et al. *Gamma-tocopherol and its major metabolite, in contrast to alpha-tocopherol, inhibit cyclooxygenase activity in macrophages and epithelial cells. Proceedings of the National Academy of Sciences USA, Vol. 97, No. 21, October 10, 2000, pp. 11494-99*

Sunscreens and melanoma

MILAN, ITALY. There is growing evidence that the use of sunscreens tends to increase the time spent in the sun, thereby possibly increasing the risk of cutaneous melanoma. A team of researchers from the European Organization for Research and Treatment of Cancer now reports that people who use sunscreens with higher sun protection factors (SPFs) tend to spend more time in the sun than do people who use sunscreens with lower SPFs. The study that was conducted in June 1998 involved 58 participants aged 18 to 24 years who were on their summer vacation. Forty-four of the participants were instructed in the use of personal dosimeters that accurately measured their exposure to UVA and UVB solar radiation. All participants were instructed to keep a daily log of their sun exposure and were randomized to one of two groups. The first group was given a 30 SPF sunscreen to use during their vacation while the second group was given a 10 SPF sunscreen.

The researchers found that the group using the 30 SPF sunscreen spent 25 per cent more time in the sun than did the group using the 10 SPF sunscreen. This increase was paralleled by an increase in daily UVB exposure. Those using the 30 SPF sunscreen that did not experience sunburn spent the highest number of hours sunbathing out of all the participants. Experiencing sunburn markedly decreased time spent in the sun in both the 10 SPF and the 30 SPF groups. The researchers conclude that the use of a 30 SPF sunscreen tends to maximize UVB exposure and that the absence of sunburn encourages longer sunbathing sessions. In other words, high SPF sunscreens provide a false sense of security.

Autier, P., et al. Sunscreen use and intentional exposure to ultraviolet A and B radiation: a double blind randomized trial using personal dosimeters. British Journal of Cancer, Vol. 83, No. 9, November 2000, pp. 1243-48

NEWSBRIEFS

Early HIV treatment is discouraged. Current practice in HIV treatment in the United States involves the use of “cocktails” of powerful drugs as early as possible after detection of the disease. British researchers have cautioned for years that this approach may cause more harm than good. American researchers have now come around to the British point of view. Says Charles Carpenter, associate director of the Brown University AIDS program “In retrospect, we now realize the risk of drug toxicity is greatly enhanced by taking these drugs early.” The American version of the International AIDS Society treatment guidelines now recommend that triple therapy not be started until the number of T-helper immune cells falls to less than 350 per milliliter of blood. The normal level is around 800 per milliliter.

New Scientist, December 16, 2000, p. 7

Childhood stress lasts a lifetime. For the past 13 years anthropologist Mark Flinn from the University of Missouri has been studying the stress levels of children on the Caribbean island of Dominica. Dr. Flinn has measured the children’s cortisol levels (in saliva) on numerous occasions and has accumulated a great deal of data linking stress levels to specific traumatic events in the children’s lives. He is also

beginning to see clear correlations between childhood stress levels and adult illness and behavioral problems. Surprisingly, he found that family issues are by far the major stressors and that poverty, competition in school, and interactions with peers have relatively little effect on stress levels. A father or mother having a fight or leaving the children, even for a short while, can send cortisol levels skyrocketing and result in illness a few days later. There are no indications that children adapt to the situation – their cortisol levels increase dramatically every time family problems erupt. Dr. Flinn has also found that women who were abused as children develop a permanently altered hormonal response that makes them hypersensitive to stress and abnormally vulnerable to depression and anxiety.

New Scientist, December 16, 2000, pp. 34-38

Denmark bans lead. High lead levels in the environment cause brain damage in children. Although several countries have taken steps to eliminate lead in automotive fuels, leaded fuels are not expected to be completely phased out in Europe until 2005. Lead is also found in some plastics, building materials, ceramics, and crystal glassware. Citing a steady increase in the levels of lead in the Danish population the Danish

government has now banned all products containing 50 or more parts per million of lead. This decision ignores the European Commission's advisors and, of course, does not sit well with Eurometaux, the association of European producers of non-ferrous metals.

New Scientist, November 25, 2000, p. 14

Test gives early warning of Parkinson's. The characteristic symptoms of Parkinson's disease are caused by the loss of dopamine-producing nerve cells in the brain. At the moment there is no advance warning signs for the disease that manifests itself through tremors, stiffness, and walking difficulties. Researchers at the Prince of Wales Medical Research Institute in Sydney, Australia now report that they have discovered a new test that may be able to detect initial signs of Parkinson's 7 to 20 years before a person develops overt symptoms. The test looks for antibodies to neuromelanin, a substance released from degenerating dopamine-producing nerve cells.

New Scientist, November 25, 2000, p. 14

New test predicts heart disease. Researchers at the San Diego State University report that they have developed a simple new test that will predict the severity of a patient's heart problem. The test measures the blood levels of a group of chemical messengers known as sphingolipids. A high level of sphingolipids, in particular sphingosine-1-phosphate, correlates with the extent of the heart problem to an even better degree than currently acknowledged risk factors such as hypertension, cholesterol levels, and smoking. The test was recently performed on 309 newly diagnosed heart attack patients and proved to be an accurate gauge of disease severity in 73 per cent of the patients. The test was even able to predict how many coronary vessels were blocked. Says professor Robert Engler of the University of California "If these findings are confirmed it will give us a new way to measure the presence of heart disease".

New Scientist, December 2, 2000, p. 18

THE AFIB REPORT

It is estimated that about 700,000 new cases of lone atrial fibrillation are diagnosed every year in the United States alone. Lone atrial fibrillation (LAF) is usually intermittent (paroxysmal) and is characterized by the fact that it is not associated with an underlying heart disease. As a matter of fact, there is now substantial evidence that LAF is really a symptom of an autonomic nervous system dysfunction and may be aggravated by excessive physical or mental stress.

While LAF is not considered life threatening it certainly can cause a serious deterioration in one's quality of life. Having suffered from LAF myself for over 10 years I am well aware of the debilitating effects of this disorder and am committed to doing my part in finding a solution to the problem.

*The medical establishment, with the exception of a few trail-blazing electrophysiologists, has unfortunately been slow to recognize the origin of LAF and is still trying to treat it with heart drugs and surgery. This approach has had little success and, as things stand now, there is no safe, effective medical treatment for this condition. Nevertheless, there is a great deal of research going on concerning LAF and this is where **The Afib Report** comes in. **The Report** will appear monthly in International Health News and will present the newest developments in the quest to vanquish LAF. We will cover the latest drugs and surgical methods, but will continue to focus on alternative methods for dealing with LAF. The LAF Forum at the International Health News website receives hundreds of enquiries and many extremely worthwhile suggestions for what can be done on a practical level. We will include the best of the Forum in future issues of **The Afib Report**.*

*There is growing evidence that amalgam dental fillings and a magnesium deficiency in the heart tissue may be major problems for LAF sufferers and it now appears that the diet can have a profound influence on the stability of the autonomous nervous system and in consequence on the risk of an LAF episode. We will cover all this and more in this and future issues of **The Afib Report**. Welcome aboard!*

Are heart drugs effective?

Researchers at the Johns Hopkins University School of Medicine have just released a major study aimed at determining the effectiveness of heart drugs in converting atrial fibrillation to sinus rhythm and in maintaining sinus rhythm in AF patients. They looked at the results of 36 major clinical trials and reached the conclusion that ibutilide/dofetilide and flecainide (Tambocor) are the most effective drugs when it comes to converting AF to sinus rhythm. Ibutilide/dofetilide was 29 times more effective than placebo and flecainide 25 times more effective. Verapamil, diltiazem (Cardizem) and digoxin (Lanoxin) were all found to be essentially useless; that is, no better than placebo. So while these drugs may be helpful in slowing the heartbeat, they are ineffective in converting it to normal sinus rhythm. Propafenone (Rythmol) and quinidine (Biquin) were much less effective and sotalol (Sotacor, Betapace) actually had a negative effect. None of the drugs evaluated were particularly effective in maintaining sinus rhythm; that is, preventing another attack. Quinidine, disopyramide (Rythmodan), flecainide, propafenone, and sotalol all showed some positive effect while verapamil, diltiazem and digoxin had no beneficial effects. The researchers point out that all the drugs tested can have serious side effects and there have been reports of increased mortality with flecainide.[1]

Considering that LAF is a disorder of the autonomic nervous system it is not really surprising that heart drugs won't cure it although they may temporarily suppress the overt symptom of fibrillation.

Researchers at the University of Michigan Medical Center have recently confirmed that not only is digoxin (Lanoxin) useless in the treatment of LAF, but it may actually worsen the condition. They conclude that digoxin might promote atrial fibrillation not only in patients with the vagal type, but among all atrial fibrillation patients.[2]

So if you have LONE atrial fibrillation and are taking digoxin ask your doctor to help you discontinue it.

LAF and the nervous system

Professor Philippe Coumel of the Hopital Lariboisiere in Paris, France was the first electrophysiologist to propose that LAF is a disorder of the autonomic nervous system. Dr. Coumel suggested that there are two forms of LAF – an adrenergic form and a vagal form.

LAF of the adrenergic variety occurs exclusively during daytime and is often preceded by exercise or emotional stress. Frequent urination (every 20 minutes or so) often occurs during the early phase of an attack. This type of LAF can also be a symptom of hyperthyroidism or pheochromocytoma.

LAF of the vagal origin is often observed in athletes and people with digestive problems and is most common among men aged 40 to 50 years. The commonest feature is that of weekly episodes, lasting from a few minutes to several hours. The essential feature is the occurrence of attacks at night, often ending in the morning. Rest, digestive periods (particularly after dinner), and alcohol consumption are also predisposing factors. Exercise or emotional stress does not trigger the arrhythmia. On the contrary, on feeling the sensation of an oncoming episode (repeated atrial premature beats), many patients have observed that they can prevent an attack by exercising, but the relaxation period that follows an effort or an emotional stress frequently coincides with the onset of vagal LAF.

The means of preventing reoccurrence of the two forms are quite different. While beta-blockers like atenolol (Tenormin) and propranolol (Inderal) may be quite effective in preventing adrenergic type attacks they, as well as digoxin, will worsen the vagal form.[2,3,4,5]

Diet and LAF

It has been known for some time that diet can influence the autonomic nervous system in diabetics. Some very recent research has found that the effects of diet on the nervous system may also be quite profound in normal, healthy people. In other words, relatively poor glycemic control can lead to a dysfunction of the autonomic nervous system. Could such a dysfunction in turn lead to an attack of LAF? We shall explore

this and other fascinating links between autonomic system dysfunction and LAF in the next issue of the **The Afib Report**. Stay tuned!

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BOOK REVIEW

ATRIAL FIBRILLATION

My Heart, The Doctors and Me

E.A. Butler

King of Hearts Publishing, Salt Lake City, UT, 2000
204 pages

It is estimated that about 700,000 new cases of lone (paroxysmal) atrial fibrillation (LAF) are diagnosed every year in the United States alone. LAF is a very frustrating disorder – although not life-threatening it is debilitating and can really play havoc with your life – and the medical profession has no cure for it.

E.A. Butler, the author of **Atrial Fibrillation: My Heart, The Doctors and Me**, is well acquainted with the treadmill of fruitless visits to GPs, cardiologists, and electrophysiologists. He has personally experienced the frustration of trying one powerful heart drug after another only to find that they did not help and, in some cases, made things worse. Mr. Butler is a retired management consultant and columnist for the *Chicago Tribune* and his writing is eloquent and easy to follow. Besides relating his own experience with LAF the author also clearly presents the results of his

impressive research into the various drug and surgery options and the role of stress, diet and lifestyle in the development and progression of LAF. He concludes that “afibbers” must take charge of their own health if they are to get better and provides a wealth of information and advice to make their task easier. The author has now reduced his frequency of LAF attacks from as many as three a week to just two a year through a program of stress reduction, exercise, appropriate diet, and supplements in combination with a beta-blocker and the heart drug flecainide. His book does not provide the ultimate solution to the LAF puzzle, but it certainly is an excellent starting point for the journey to full recovery. A **MUST READ** for anyone diagnosed with lone atrial fibrillation. You can order **Atrial Fibrillation: My Heart, The Doctors and Me** at our website <http://www.yourhealthbase.com/books.html>.

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