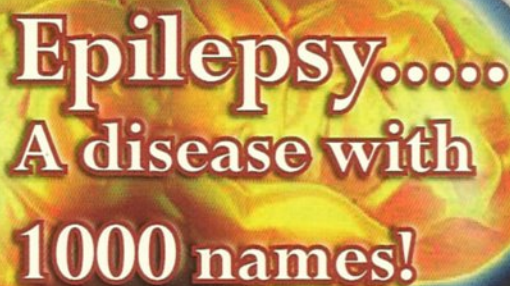
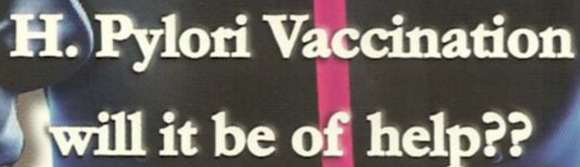
MEDICAL UPDATES

Issue No.:5 April 2011





Egyphar Medical Updates

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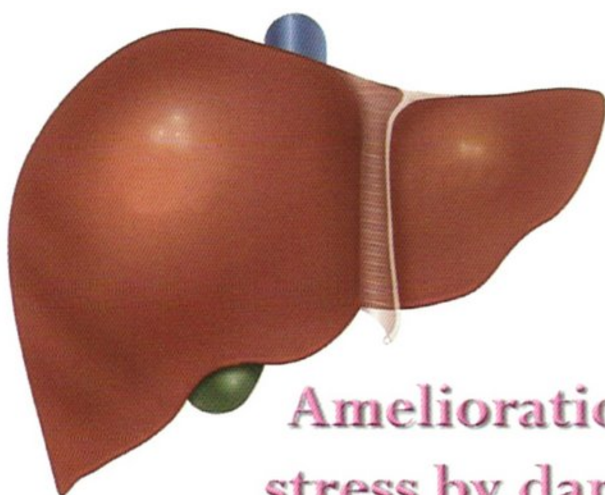
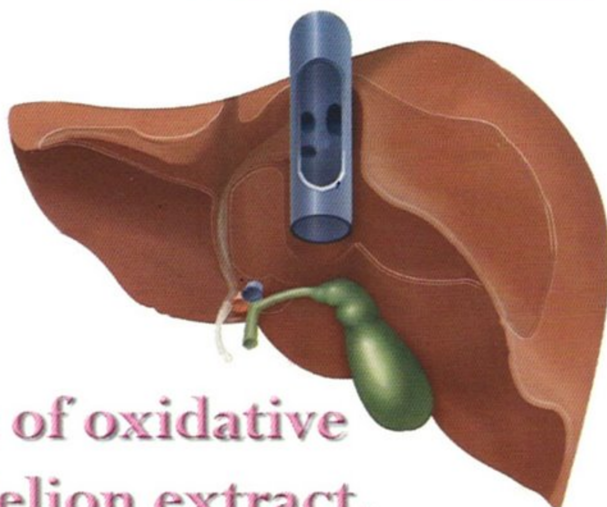
Phytother Res. 2010 Sep;24(9):1347-53.

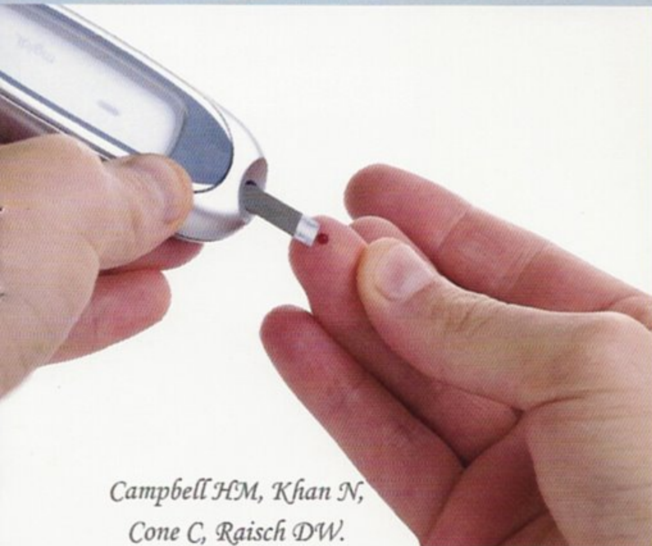
Amelioration of oxidative stress by dandelion extract.

Park CM, Cha YS, Youn HJ, Cho CW, Song YS.

Department of Smart Foods and Drugs, Food Sciences Institute, Biohealth Products Research Center, Inje University, Gimhae, Gyeongnam, 621-749, Korea.

Abstract

The protective effects of common dandelion leaf water extract (DLWE) were investigated by carbon tetrachloride (CCl4) induced hepatitis in Sprague-Dawley rats. The animals were divided into five groups: normal control, DLWE control, CCl4 control, and two DLWE groups (0.5 and 2 g/kg bw). After 1 week of administering corresponding vehicle or DLWE, a single dose of CCl4 (50% CCl4/ olive oil; 0.5 mL/kg bw) was administered 24 h before killing in order to produce acute liver injury. The DLWE treatment significantly decreased CCl4-induced hepatic enzyme activities (AST, ALT and LDH) in a dose dependent manner. Also, the obstructed release of TG and cholesterol into the serum was repaired by DLWE administration. Hepatic lipid peroxidation was elevated while the GSH content and antioxidative enzyme activities were reduced in the liver as a result of CCl4 administration, which were counteracted by DLWE administration. Furthermore, the hepatocytotoxic effects of CCl4 were confirmed by significantly elevated Fas and TNF-α mRNA expression levels, but DLWE down-regulated these expressions to the levels of the normal control. Highly up-regulated cytochrome P450 2E1 was also lowered significantly in the DLWE groups. These results indicate that DLWE has a protective effect against CCl4-induced hepatic damage with at least part of its effect being attributable to the attenuation of oxidative stress and inflammatory processes resulting from cytochrome P450 activation by CCl4.



Res Social Adm Pharm. 2010 May 6.

Relationship between diet, exercise habits, and health status among patients with diabetes.

Campbell HM, Khan N, Cone C, Raisch DW.

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Abstract

BACKGROUND: The American Diabetes Association recommends that people with diabetes should engage in physical activity and healthy eating. Similarly, diets rich in fruits or vegetables (5-13 servings) have been found to lower the risk of stroke, cardiovascular conditions, cancer, and diabetes.

OBJECTIVES: To examine the associations between eating fruits and vegetables and exercising on physical/mental health among diabetes patients. A secondary objective was to describe the relationship between socioeconomic status and physical/mental health. Finally, we used the Health Belief Model (HBM) to help providers understand how they can work best with their patients to implement healthy lifestyle.

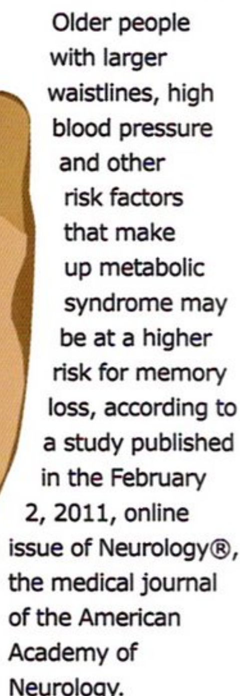
METHODS: The 2005 Centers for Disease Control's Behavioral Risk Factor Surveillance System was used to determine the relationship between eating fruits/vegetables and exercise on physical and mental health. The sample was restricted to individuals who self-reported being diagnosed with diabetes (N=33,320) in 2005. Eating fruits and vegetables was categorized by the number of fruit and vegetable servings consumed daily (0, 1-2, 3-4, and ≥5). Poisson regression was used to assess these associations.

RESULTS: Only 26% of individuals ate 5 or more servings of fruits and vegetables, whereas only 33% met exercise recommendations. Individuals who ate 5 or more servings of fruits and vegetables reported better mental health but poor physical health. Compared with meeting exercise recommendations, no exercise was associated with more days of poor physical/mental health.

CONCLUSIONS: Reinforcement of daily exercise is helpful to patients with diabetes (PWDS); meeting exercise recommendations was associated with better outcomes of physical and mental health. Pharmacists and other public health providers should focus on interventions that incorporate the promotion of healthy lifestyles. The HBM can be used to improve health behavior among PWDS. Pharmacists are in a unique position to advocate change with consistent access to care.

18-Feb-2011

Metabolic Syndrome Linked to Memory Loss in Older People



Older people with larger waistlines, high blood pressure and other risk factors that make up metabolic syndrome may be at a higher risk for memory loss, according to a study published in the February 2, 2011, online issue of Neurology®, the medical journal of the American Academy of Neurology.

Metabolic syndrome was defined as having three or more of the following risk factors: high blood pressure, excess belly fat, higher than normal triglycerides (a type of fat found in the blood), high blood sugar and low high-density lipoprotein (HDL) cholesterol, or "good" cholesterol. Metabolic syndrome has also been tied to increased risk of heart attack.

For the study, 7,087 people age 65 and older from three French cities were tested for metabolic syndrome. A total of 16 percent of the participants had metabolic syndrome. Participants were given a series of memory and cognitive function tests two and four years later. The tests included a memory test, a test of visual working memory and a test of word fluency.

Researchers found that people who had metabolic syndrome were 20 percent more likely to have cognitive decline on the memory test than those who did not have metabolic syndrome. Those with metabolic syndrome also were 13 percent more likely to have cognitive decline on the visual working memory test compared to those who did not have the syndrome. Specifically, higher triglycerides and low HDL cholesterol were linked to poorer memory scores; diabetes, but not higher fasting blood sugar, was linked to poorer visual working memory and word fluency scores.

"Our study sheds new light on how metabolic syndrome and the individual factors of the disease may affect cognitive health," said study author Christelle Raffaitin, MD, of the French National Institute of Health Research in Bordeaux, France. "Our results suggest that management of metabolic syndrome may help slow down age-related memory loss, or delay the onset of dementia."

The study was conducted under a partnership agreement between the French National Institute of Health Research (INSERM), the University Victor Segalen Bordeaux 2 and Sanofi-Aventis. The 3C Study was supported by the National Fund for Health Insurance for Employees, Directorate General of Health, Mutual General Education, the Institute of Longevity and Aging, Regional Councils of Aquitaine and Bourgogne and the Foundation of France. The Lille Genopole was supported by an unconditional grant from Eisai.

Source: American Academy of Neurology

Helicobacter. 2010 Sep;15

H. Pylori Vaccination will it be of help??

Ford AC, Axon AT.

Epidemiology of Helicobacter Pylori Infection and Public Health Implications

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Abstract

This article summarizes the published literature concerning the epidemiology and public health implications of Helicobacter Pylori infection published from April 2009 through March 2010. Prevalence of infection varied between 7 and 87% and was lower in European studies. All retrieved studies examining transmission of infection concluded that spread is from person-to-person. One study collecting stool and vomitus samples from patients with acute gastroenteritis detected H. Pylori DNA in 88% of vomitus and 74% of stool samples. Proposed risk factors for infection included male gender, increasing age, shorter height, tobacco use, lower socioeconomic status, obesity, and lower educational status of the parents in studies conducted among children. Decision analysis models suggest preventing acquisition of H. Pylori, via vaccination in childhood, could be cost-effective and may reduce incidence of gastric cancer by over 40%. As yet, no country has adopted public health measures to treat infected individuals or prevent infection in populations at risk.

Decision analysis models suggest preventing acquisition of H. pylori, via vaccination in childhood, could be cost-effective and may reduce incidence of gastric cancer by over 40%

Epilepsy.....
A disease with 1000 names!

Hardly any other disease has been given so many different names in the course of history as epilepsy has.

From this we can conclude that throughout the ages people have been preoccupied with this disease. There are two main reasons for this interest:

Firstly, epilepsy has always been a common disease: 0.5-1% of all people suffer from it.

Secondly, the image with which epilepsy is usually associated - the grand mal attack - arouses feelings of fear and horror. People have always tried to put these feelings into words.

In addition to this, epilepsy can have very different symptoms, all of which need to be described and given a name.

This naming of a person, an object and also an illness was in former centuries of much greater importance than it is today.

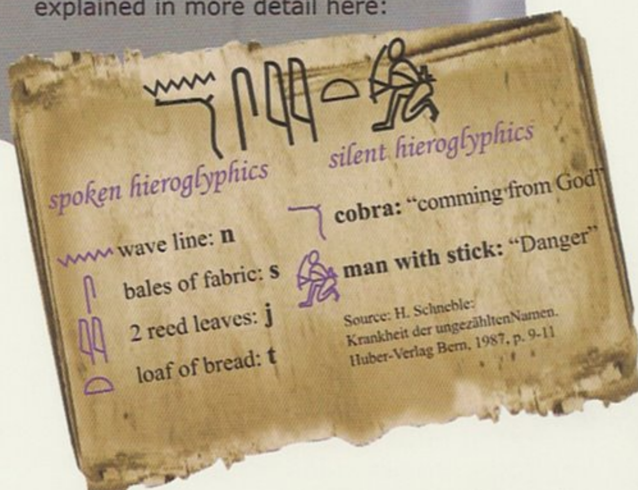
To be able to give someone a name or to find out the name of someone else meant having power over that person, whereas the inability to name something was tantamount to being powerless (as in the phrase "unspeakable misery").
Thus, people believed or hoped that if they could give a name to a disease, they would not fall victim to it.

From the various names which a disease is given over time, we can deduce what the people in each period thought about its cause (e.g. "lunatism" - a disorder caused by the phases of the moon; "daemonic suffering": brought about by evil spirits).

At the same time, the names can also tell us about the people who gave them and their beliefs (e.g. "the scourge of Christ": the person who gave this name to epilepsy definitely believed in Christ and his power to punish).

By looking at the different names which epilepsy was given throughout the ages, it is possible to piece together some of the medical, cultural and social history surrounding this disease.

One example for this theory is the ancient Egyptian name for epilepsy "nesejet", which is explained in more detail here:



To the ancient Egyptians the term <nsjt> (= nesejet = epilepsy) signified a disease which was sent by the gods and which was extremely dangerous.

Epilepsy: Key Stats

- Epilepsy is the most common serious brain disorder[1]
- It affects about 50 million people worldwide[1]
- There are an estimated 2 million new cases of epilepsy worldwide each year[3]
- At least 50% of cases begin in childhood or adolescence[3]
- In the US, over 3 million people have epilepsy[2]
- In the US, there are approximately 200,000 new cases each year[2]
- In developed countries mortality in people with epilepsy is 2-3 times higher than in the general population[1]

Epilepsy in developing countries

- In developing countries, 60% to 90% of people with epilepsy receive no treatment due to inadequate healthcare and social stigma[3]

Success of treatment

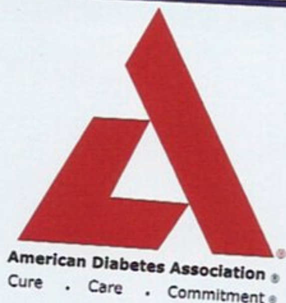
- 70%-80% of people with epilepsy could lead normal lives if properly treated[3]
- Approximately 60% of cases of epilepsy can be treated successfully (become seizure free with a single AED[1]
- Between 30% and 40% of people with epilepsy continue to have seizures despite combination therapy[1]

References

1. WHO. Epilepsy Atlas.Available at www who.int/ mental_health/neurology/Epilepsy atlas r1.pdf [Accessed 7 May 2008]
2. Epilepsy Foundation. Epilepsy and seizure statistics.Available at www epilepsyfoundation org/about/statistics.cfm [Accessed 4 July 2008]
3. WHO. Epilepsy: aetiology, epidemiology and prognosis.Available at: www.who.int mental_health/management/neurological en/ [Accessed 7 July 2008]

Rx

From Medscape Diabetes & Endocrinology



ADA's Practice Guidelines for 2011

Anne L. Peters, MD, CDE

Hi. I'm Dr. Anne Peters, and today I'm going to discuss the 2011 clinical recommendations for the management of diabetes from the American Diabetes Association. These clinical practice recommendations are available in a publication that comes out in January each year from the American Diabetes Association and are also available for free on their Website. The good news about these 2011 practice recommendations is that they don't differ hugely from previous recommendations, so we don't have to change our practice that much. The area in which they differ the most is in terms of screening for gestational diabetes, which I'll discuss in a moment.

It's nice to know that the targets we've been striving for are actually still applicable. We've had a number of clinical trials in the past few years that have led to some confusing data about the safety of normalizing blood glucose levels, but the current target of an A1c [level] of less than 7% seems to still be a reasonable target. More normal blood glucose levels clearly reduce the risk for microvascular complications such as retinopathy, nephropathy, and neuropathy. If tight glucose control is started early in the course of the disease, it will also lead to reductions in macrovascular complications.

We also have learned that we really must individualize our care. A young healthy person in their 40s or 50s who can get to an A1c [level] of even less than 6% without excessive hypoglycemia is doing really well. That's a great target, but in older patients, someone who is on insulin, someone who is trying really hard but hypoglycemia develops and [he or she] really can't do any better than a hemoglobin A1c of 7.5% or even 8%, those are patients in whom I will accept a higher target because I don't want to cause any harm, particularly if that harm comes in terms of episodes of severe hypoglycemia.

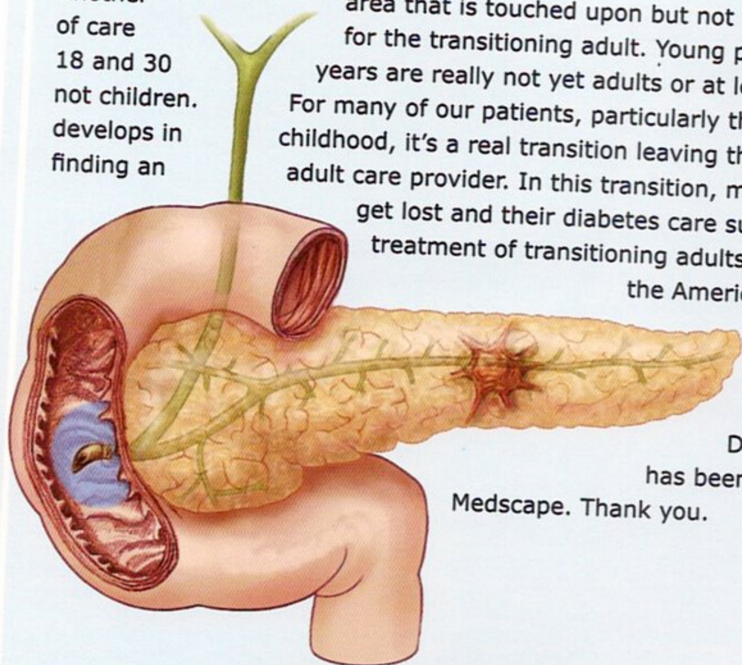
Not only were our glucose targets validated, but so were our other

targets. The blood pressure target remains less than 130/80 [mm Hg]. The LDL [low-density lipoprotein] target remains less than 100 mg/dL unless a patient has known cardiovascular disease, and then it's lowered to less than 70 mg/dL.

In terms of gestational diabetes, we're really doing away with the old 50-gram screen and then the follow-up 100-gram glucose tolerance test. It's now recommended that all pregnant women who are between 24 and 28 weeks of gestation undergo a 75-gram 2-hour glucose tolerance test. Blood should be drawn for glucose levels at baseline, at 1 hour, and at 2 hours. A woman only needs to have a single abnormal value to be diagnosed with gestational diabetes.

The cutpoints are as follows. The fasting cutpoint is greater than or equal to 92 mg/dL. The 1 hour cut point is greater than or equal to 180 mg/dL. The 2-hour cutpoint is greater than or equal to 153 mg/dL. If a woman is found to go above any of these cutpoints, she's diagnosed with gestational diabetes and treated accordingly. It's also very important to remember that women who have had gestational diabetes in the past should be screened at least every 3 years to be sure that true diabetes -- usually type 2 diabetes -- [doesn't develop] in the future.

Another area that is touched upon but not yet addressed is the notion of care for the transitioning adult. Young people between the ages of 18 and 30 years are really not yet adults or at least full adults and they're not children. For many of our patients, particularly those in whom diabetes develops in childhood, it's a real transition leaving their pediatrician behind and finding an adult care provider. In this transition, many of these youths tend to get lost and their diabetes care suffers. New guidelines for the treatment of transitioning adults will be published soon by the American Diabetes Association.



Those are the clinical practice recommendations for 2011 by the American Diabetes Association. This has been Dr. Anne Peters for Medscape. Thank you.

March 31, 2011

Resistant hypertensives? Or White-Coat Hypertension

Allison Gandey

38% Of patients thought to be resistant hypertensives actually had white coat hypertension

"Patients with normal ambulatory blood pressure will probably have no benefit of increasing antihypertensive treatment, but an exaggerated blood pressure reduction would be dangerous for cerebral and cardiac normal perfusion," lead investigator Alejandro de la Sierra, MD, from the University of Barcelona in Spain, told Medscape Medical News. "Ambulatory blood pressure monitoring should be considered in all hypertensives showing resistance to treatment."

The results appeared online March 28 in the journal Hypertension.

Using data from the Spanish Ambulatory Blood Pressure Monitoring Registry, investigators identified more than 68,000 patients with hypertension receiving treatment.

Ambulatory blood pressure monitoring should be considered in all hypertensives showing resistance to treatment.

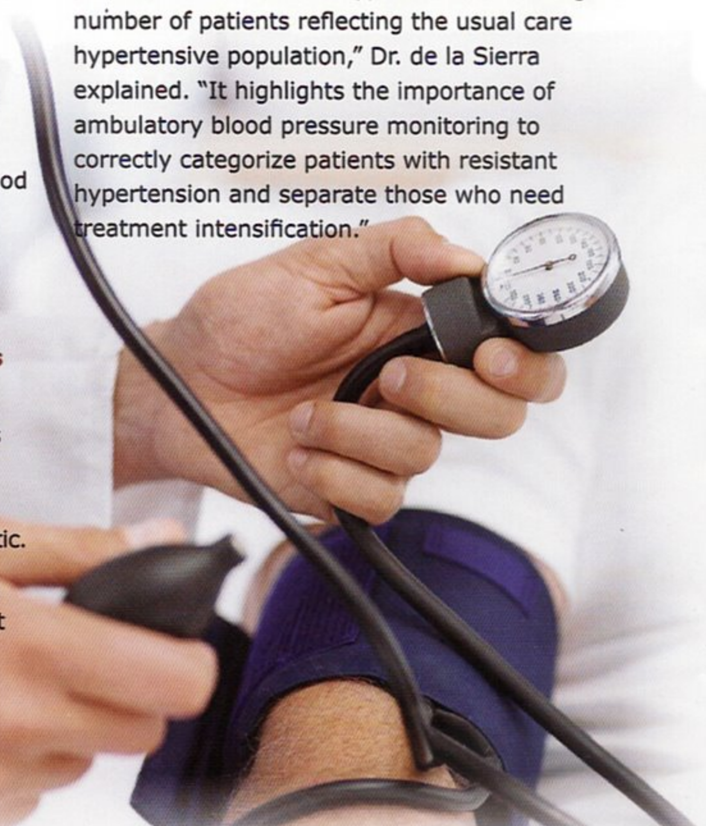
Of these, 12% had resistant hypertension. This was defined as an office blood pressure of 140 and 90 mm Hg or higher while receiving 3 or more antihypertensive drugs, including a diuretic.

After ambulatory blood pressure monitoring, 63% of patients were identified as treatment resistant; the remaining 38% had white-coat hypertension.

Those resistant to treatment were more likely to be males with longer-duration hypertension. They were also more likely to be smokers and have diabetes and organ damage, including left ventricular hypertrophy, impaired renal function, microalbuminuria, and documented cardiovascular disease.

The investigators report that true resistant hypertensive patients were more likely to have a riser pattern (22% vs 18%, $P < .001$).

"Our study provides an estimation of the prevalence of resistant hypertension in a huge number of patients reflecting the usual care hypertensive population," Dr. de la Sierra explained. "It highlights the importance of ambulatory blood pressure monitoring to correctly categorize patients with resistant hypertension and separate those who need treatment intensification."



'A Well-Done Paper'

During an interview, American Heart Association spokesperson Donald LaVan, MD, complimented the work, calling it "a well-done paper." Dr. LaVan, from the University of Pennsylvania, Philadelphia, says physicians have good reason to be concerned about hypertension, and he pointed out that even white-coat inspired peaks can be dangerous. "When pressures are way up — even temporarily — the vascular burden is high."

In a 2009 study published in the Journal of the American Medical Association, investigators showed patients with white-coat or masked hypertension were at risk of developing sustained disease. "This may contribute to their prognosis that appears to be worse as compared with that of normotensive subjects," reported the team led by Giuseppe Mancia, MD, from the University Milan-Bicocca in Italy.

"These results clearly indicate that neither of the 2 conditions should be shrugged off as innocent observations," Dr. Franz Messerli and Dr. Harikrishna Makani, from St Luke's-Roosevelt Hospital Center and Columbia University in New York City, said in an accompanying editorial.

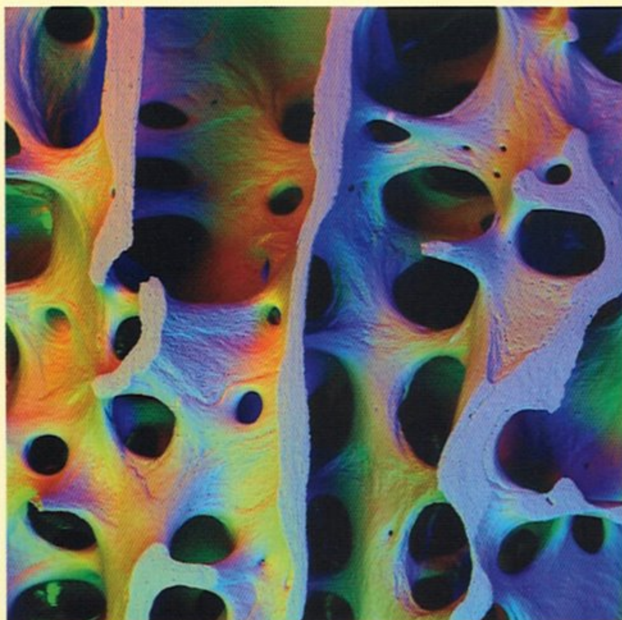
They recommended that white-coat and masked hypertension be diagnosed and carefully monitored with a conservative treatment approach for patients with white-coat hypertension.

> Ambulatory blood pressure monitoring should be considered in all hypertensives showing resistance to treatment.

Dr. de la Sierra said his team will continue to follow up their patients with white-coat peaks to obtain outcome data to help determine best management options.

The Spanish Ambulatory Blood Pressure Monitoring Registry is funded by an unrestricted grant from Lacer Laboratories. The authors of this study have participated in educational meetings paid for by Lacer.

J Bone Miner Res (2005) 20: 141-51.



Treatment with once-weekly alendronate 70 mg compared with once-weekly risedronate

CJ Rosen, MC Hochberg, SL Bonnick, M McClung, P Miller, S Broy, R Kagan, E Chen, RA Petruschke, DE Thompson, AE de Papp

Once-weekly alendronate 70 mg and once-weekly risedronate 35 mg are indicated for the treatment of postmenopausal osteoporosis. These two agents were compared in a 12-month head-to-head trial. Greater gains in BMD and greater reductions in markers of bone turnover were seen with alendronate compared with risedronate with similar tolerability.

INTRODUCTION: The nitrogen-containing bisphosphonates, alendronate and risedronate, are available in once-weekly (OW) formulations for the treatment of postmenopausal osteoporosis. A 12-month, head-to-head study was performed to compare these agents in the treatment of postmenopausal women with low BMD.

MATERIALS AND METHODS: A total of 1053 patients from 78 U.S. sites were randomized to OW alendronate 70 mg (N = 520) or risedronate 35 mg (N = 533), taken in the morning after fasting. Endpoints included BMD changes over 6 and 12 months at the hip trochanter, total hip, femoral neck, and lumbar spine (LS); percent of patients with predefined levels of change in trochanter and LS BMD at 12 months; and change in biochemical markers of bone turnover at 3, 6, and 12 months. Tolerability was evaluated by adverse experience (AE) reporting.

RESULTS: Significantly greater increases in hip trochanter BMD were seen with alendronate (3.4%) than risedronate (2.1%) at 12 months (treatment difference, 1.4%; $p < 0.001$) as well as 6 months (treatment difference, 1.3%; $p < 0.001$). Significantly greater gains in BMD were seen with alendronate at all BMD sites measured (12-month difference: total hip, 1.0%; femoral neck, 0.7%; LS, 1.2%).

Significant differences were seen as early as 6 months at all sites. A greater percentage of patients had > or =0% ($p < 0.001$) and > or =3% ($p < 0.01$) gain in trochanter and spine BMD at 12 months with alendronate than risedronate. Significantly greater ($p < 0.001$) reductions in all biochemical markers of bone turnover occurred with alendronate compared with risedronate by 3 months. No significant differences were seen between treatment groups in the incidence of upper gastrointestinal AEs or AEs causing discontinuation.

CONCLUSIONS: In this 12-month, head-to-head trial of alendronate and risedronate, given in accordance with the approved OW regimens for treatment of osteoporosis in postmenopausal women, **alendronate produced greater gains in BMD and greater reductions in markers of bone turnover than risedronate. The greater antiresorptive effect of alendronate was seen as early as 3 months, and the tolerability profiles were similar.**