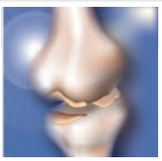
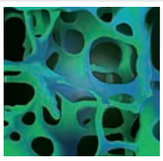


Bulletin Board

Women's future independence threatened by osteoporosis

A new report published by the International Osteoporosis Foundation (Nyon, Switzerland) suggests that although women may expect to live longer, if measures to protect their bone health are not taken, their quality of life will be seriously jeopardized. Postmenopausal women are those most at risk of osteoporosis and fractures. Osteoporosis affects approximately 200 million worldwide and a fracture as a result of this disease will occur in approximately one in three women.

Huge demands are expected to be put on healthcare systems and professionals owing to the increasingly aging population. Osteoporosis costs €37 billion in the EU and costs look set to escalate with number of sufferers projected to increase by 23% from €27.5 million in 2010 to €33.9 million in 2025. Healthcare budgets will have to accommodate a massive increase in the incidence of age-related chronic diseases as the baby-boomer generation ages.

Professor John A Kanis, president of International Osteoporosis Foundation urged, "The time to act is now, those of us working in the noncommunicable disease community congratulated governments for their commitment to reduce the noncommunicable disease burden by 25% by 2025, at the World Health Assembly in 2012. As advocates for bone, muscle and joint health we have identified cost-effective evidence-based solutions that can be implemented immediately, which will not only save lives but reduce healthcare costs, and ultimately help governments reach this target.

Solution for fracture prevention and management are detailed in the report 'Bone care for postmenopausal women'. The bone health of women over the age of 50 years is crucial as this group play a vital role within the family and society as breadwinners and care givers, therefore safeguarding future generations. This is exemplified by the fact that women over 50 years of age make up 43% of care givers and in Spain 70% of women over 65 years of age take care of their grandchildren, in many cases every day. Women over 50 years of age most often care for elderly parents and disabled or sick family members in countries around the world.

"Although the earlier prevention begins the better, when a woman reaches menopause she must not delay any longer. Menopause is the critical time to take preventive measures against bone loss and muscle weakness that can lead to osteoporosis, falls and fractures," said report coauthor Professor Bess Dawson Hughes, Director of the Bone Metabolism Laboratory, Jean Mayer USDA Human Nutrition Research Center on Aging at Tufts University (MA, USA).

Bone is a living tissue, and fine balance of bone resorption and formation results in its regeneration throughout life.

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However, this balance shifts at menopause and bone resorption exceeds formation, which results in a rapid decline in bone mass. This can lead to the porous, weak and easily fractured bones seen with osteoporosis. In women over 45 years of age, fractures account for more days spent in hospital than many other diseases, including diabetes and breast cancer, and have a dramatic effect on quality of life.

The report stresses the importance of secondary fracture prevention. "An individual who has experienced a fracture is at double the risk of suffering a second fracture compared with a person without fractures. In postmenopausal women, a broken wrist or a spinal fracture is often the harbinger of more fractures to come and should be taken as a warning that testing and preventive treatment is needed. Given that 20% of those who suffer a hip fracture die within 1 year, it is not only unacceptable, but unjust not to take action to change this," said Professor Cyrus Cooper, Chair, International Osteoporosis Foundation Committee of Scientific Advisors.

Source: Bone care for the postmenopausal woman: http://share.iofbonehealth.org/WOD/2013/thematic-report/WOD13-Report.pdf

Intravenous lidocaine offers pain relief for fibromyalgia sufferers

A study presented at the Anestheisology 2013 annual meeting suggests that a new pain relief treatment could be available to fibromyalgia patients who are resistant to more routine therapies. Significant pain relief was seen in patients treated with an intravenous lidocaine infusion, although this was seen to be much less in smokers and African–Americans.

Fibromyalgia, which affects an estimated 10 million people in the USA, is one of the most common chronic pain conditions. Approximately 3–6% of the world population are thought to suffer with fibromyalgia, and approximately 80–90% of these are women. Fibromyalgia is a disorder of the CNS and is characterized by widespread pain throughout the body and heightened and painful response to pressure. Fatigue, sleep disorders and joint stiffness are also observed.

"Fibromyalgia is a truly debilitating disease that can have a severe impact on quality of life," said Billy K Huh, Professor and Medical Director of the Department of Pain Medicine at The University of Texas MD Anderson Cancer Center (TX, USA) and Adjunct Professor of the Department of Anesthesiology at Duke University Medical Center (NC, USA).

The retrospective review involved 55 fibromyalgia patients whose pain was unresponsive to more conservative treatments. Data were collected on sex, race, body weight, pain duration and pain relief duration after lidocaine infusion, as well as brief pain inventory scale, visual analog scale and pain interference scale scores before and after infusion scores.

A 10% average decrease in the pain inventory score, from 83.18 before the infusion to 73.68 after the infusion, was observed in the study. Average pain interference was seen to drop from 7.73 to 6.88. A lower value for the brief pain inventory score was seen in nonsmokers compared with smokers (the average score was 72.63 in nonsmokers and 89.98 in smokers).

It was suggested by Dr Huh that the vascular damage that often occurs in smokers and which impairs blood flow may mean that the lidocaine did not reach the painful area in those who smoked owing to poor blood flow. He also proposed that, due to the significant amounts of toxic chemicals in the blood of smokers, the benefit of the lidocaine may be reduced.

A difference of 0.028 in pain interference scores was also observed between white and African–American patients, when a score of less than 0.05 is seen as statistically significant. Although he could not be certain regarding the reason for the difference, he said that, "many drugs are more effective or less effective for certain ethnic groups. For example, some blood pressure medications are more effective for certain races. I think this finding is quite possibly related to genetic makeup."

Source: Fibromyalgia sufferers get pain relief from IV lidocaine: www.sciencedaily.com/releases/2013/10/131013163314.htm

Disease classification improved by updated systemic sclerosis criteria

The recent publication of new classification criteria for systemic sclerosis, which are more sensitive than the 1980 criteria ,will allow earlier identification and treatment of this disabling autoimmune condition. Published in *Arthritis and Rheumatism*, the 2013 criteria were developed by a joint committee commissioned by the ACR and European League Against Rheumatism.

A connective tissue disease, systemic sclerosis or scleroderma is characterized by hardening of the tissue owing to increased collagen deposits; Raynaud's phenomenon, which is caused by spasms in small blood vessels in response to cold or stress causing symptoms from color changes in fingers and toes to obliteration of blood vessels (vasculopathy), which leads to tissue death; and fibrosis of internal organs. It is estimated by the ACR that systemic sclerosis affects 49,000 adults in the USA.

Led by Dr Janet Pope from Western University, St Joseph's Health Care (London, UK) and Dr Frank van den Hoogen from St Maartenskliniek (The Netherlands), the aim of the joint committee was to improve the classification of systemic sclerosis by clustering items and simplifying the weighting of different criteria. Testing of the new criteria or specificity and sensitivity was done by comparing scleroderma cases with controls. Validation was carried out by experts viewing cases with and without the disease.

"There is a need for improved classification criteria for systemic sclerosis," explains Dr van den Hoogen. "The 1980 ACR criteria were not sensitive enough to identify patients with early disease or limited cutaneous system sclerosis. Our efforts with the joint committee addressed this sensitivity issue, resulting in the 2013 classification criteria for systemic sclerosis."

> "There is a need for improved classification criteria for systemic sclerosis..."

Patients with thickening of the skin in the middle part of the fingers would, according to the new criteria, be classified as having systemic sclerosis, whether or not other features were present. However, if this aspect of the criteria was not met, a scleroderma classification would be obtained by assessing seven items with varying weights: skin thickening of the fingers, fingertip lesions, telangiectasia, abnormal nailfold capillaries, pulmonary arterial hypertension and/or interstitial lung disease, Raynaud's phenomenon and systemic sclerosis-related antibodies.

Sensitivity and specificity for the new criteria were both shown by the validation testing to be above 90% by validation testing compared with 75% for the 1980 ACR criteria. "The new systemic sclerosis classification criteria should correctly classify more patients with the disease," concludes Dr Pope. "Criteria that are more specific will allow for earlier identification and better treatment for those with systemic sclerosis."

Source: van den Hoogen F, Khanna D, Fransen J *et al.* 2013 classification criteria for systemic sclerosis: an American College of Rheumatology/European League Against Rheumatism collaborative initiative. *Ann. Rheum. Dis.* 72(11), 1747–1755 (2013).

Getting to the bottom of calcium intake advice

The use of calcium supplements to prevent fractures has been compounded by conflicting reports in recent years on whether these supplements increase the risk of heart attack.

Now, a University of California San Francisco (CA, USA) researcher has published a perspective piece assessing the scientific literature and calls for a focus on, when possible, getting calcium from the diet rather than supplements.

"Osteoporosis may result from inadequate calcium intake and it's quite common for certain segments of our population, such as the elderly, to consume less than the recommend amount," said Douglas C Bauer, University of California San Francisco. "A high calcium diet should be the preferred method to receive adequate amounts of the nutrient." The Institute of Medicine's recommended dosage for postmenopausal women over the age of 50 years and men over 70 years is 1200 mg per day.

"If it is not possible to consume enough calcium from the diet, the use of calcium supplements is most likely safe and not associated with cardiovascular outcomes," he said.

Several side effects of calcium supplements are known: indigestion and minor constipation are common and kidney stones can rarely occur. However, it had also been suggested by several recent studies that heart attacks can result from calcium supplementation.

> "...high intake of supplemental calcium is associated with an excess risk of cardiovascular disease death in men, but not in women."

A 2010 study in the *BMJ* pooled nearly a dozen randomized trials and concluded that calcium supplements, "are associated with an increased risk of myocardial infarction (heart attacks)" and went on to say, "As calcium supplements are widely used, these modest increases in risk of cardiovascular disease might translate into a large burden of disease in the population."

An examination of 11,778 cardiovascular-related deaths in a nonrandomized study published in a 2013 issue of *JAMA* found an increased risk of cardiovascular disease with calcium supplementation. It was concluded by the authors that, "high intake of supplemental calcium is associated with an excess risk of CVD (cardiovascular disease) death in men, but not in women."

However, no relationship between the use of calcium supplements and cardiovascular events was found in several other studies.

An example of this is a 2010 meta-analysis including all Women's Health Initiative trial participants, which demonstrated that they showed "no significant relationship between supplementation and cardiovascular events" in three trials of calcium supplements alone. It is recommended by Bauer that people should consume dairy products to increase daily intake of calcium, along with food products that are fortified with extra calcium.

Source: Bauer DC. Clinical practice. Calcium supplements and fracture prevention. *N. Engl. J. Med.* 369(16), 1537–1543 (2013).

– All stories written by Sarah Jones

About the Bulletin Board

The Bulletin Board highlights some of the most important events and research in the field of rheumatology. If you have newsworthy information, please contact: Sarah Jones, Commissioning Editor, *International Journal of Clinical Rheumatology*, Future Medicine Ltd, s.jones@futuremedicine.com