

HEALTH AND WELLNESS NEWS ITEMS – October-November 2014

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If any of these abstracts seem relevant to your care, be sure to consult with your personal physician before changing your treatment.

1. SHEDDING LIGHT ON ESSENTIAL TREMOR (ET)

Efforts are underway to understand the basis for essential tremor and to develop a more effective treatment for this medical condition.

Essential tremor is defined as an involuntary shaking movement with no identifying cause. It is the most common type of tremor; population studies of incidence range from 1 in 250 to 1 in 25. Symptoms of ET may come and go, but this is a progressive disorder. It is most commonly observed in people older than 65. The trait or susceptibility to the trait is often inherited, and thus referred to as “familial tremor”; genes on chromosomes 2, 3, and 6 appear to be associated. It is usually an autosomal dominant trait, that is, it may come from only the mother or only the father.

The degree of disability varies widely among ET patients. Tremor is most frequently seen in the hands. Neck muscles are often involved, resulting in nodding “yes” or shaking “no”. In some cases, muscle tremor also results in vocal tremor. Muscles of the tongue, eyelids, and legs are infrequently involved. The intensity of movements is increased by anxiety, stress, pain, tiredness, caffeine and other stimulants, legal and illegal drugs, and withdrawal of drugs or alcohol. Less trembling occurs during relaxation, rest, or sleep. Ingestion of modest amounts of ethanol profoundly decreases tremor severity in about three-fourths of affected subjects.

A large number of ET individuals remain undiagnosed, misdiagnosed, and/or untreated. Currently, there is no curative therapy available, but medications, therapy, deep-brain stimulation, and changes in life-style can ease symptoms and improve quality of life for some individuals. Among the medications being prescribed are beta blockers (such as propranolol), anticonvulsants (such as primidone), mild tranquilizers (such as alprazolam), blood pressure drugs (such as flunarizine), and Botox injections. Unfortunately, the use of these drugs is often limited in the elderly by “insufficient efficacy, unavoidable side effects, or drug interaction”.

On the horizon is the possibility of the treatment of ethanol-responsive ET patients with octanoic acid, a naturally-occurring, food additive that reduced tremor without side effects in preliminary studies. A large clinical trial is underway at Syracuse University and Upstate Medical University.

Sources: *The New York Times*, 28 September 2014

Nature Clinical Practice Neurology, 2, 2006, Pgs. 666-678

Neurology, 80 (10), 5 March 2013, Pgs. 933-940

Tremor Talk, April 2014. Pgs. 4, 5

2. DIABETES AND STROKE RISK

The effect of high blood sugar to increase stroke risk was examined by three studies published this year. Two of these reports suggest that the risk may be higher for women and two implicate the pre-diabetic phase in the early stages.

An analysis of 64 studies encompassing more than 12,000 strokes found that diabetic women had a 27% greater risk of stroke than diabetic men, even after controlling for baseline differences in major cardiovascular risk factors. The authors speculate that vascular deterioration in the pre-diabetic phase occurs sooner in women and women would benefit from earlier intervention.

Source: *The Lancet online*, 7 March 2014

A prospective study of 20,000 patients with type 2 diabetes, with about 3,000 strokes, compared the blood sugar levels with stroke risk. Women, but not men, had a graded association between increasing blood sugar and stroke risk, that is, the higher the blood sugar the greater the risk of stroke. The trend was particularly significant in women older than 55.

Source: *Diabetologia*, 24 February 2014

A study of 512 patients with a first (non-hemorrhagic) stroke compared MRI evidence of cerebral white matter disease (WMD) with blood sugar levels. Almost 90% of patients were found to have WMD, a marker of chronic ischemia (reduced blood flow) that is usually associated with increasing age and hypertension. The authors found the greater incidence of WMD after strokes to be related to increasing blood sugar levels (as well as to older age and higher blood pressure). The analysis suggested that even pre-diabetic blood sugar levels might increase the risk of WMD.

Source: *Stroke*, 25 February 2014

3. CHRONIC KIDNEY DISEASE IN THE ELDERLY

The aging of the general population means that older people now account for a much greater proportion of patients with or at risk for kidney disease and kidney failure. Chronic kidney disease worsens the effects of diabetes, hypertension, heart disease, and stroke—all of which are key causes of death and disability in older people. Chronological age alone will not be sufficient as the basis for clinical decisions, therefore a more nuanced approach is required for therapy options—based on concurrent diseases, functional status, quality of life, and preferences of each individual patient.

The incidence of dialysis-dependent kidney failure has steadily increased among older people over the last few decades: in the US, a 57% increase in the number of octogenarians and nonagenarians receiving dialysis was noted between 1996 and 2003. People facing end-stage kidney disease can be reassured that dialysis will allow reasonable quality of life in many older people with kidney failure. However, for transplant recipients aged ≥ 65 years, survival probabilities are lower as compared to those aged 35-49 years. More importantly, clinicians, patients, and their families can be comforted by the knowledge that timely specialist evaluation can help to improve outcomes and reduce symptoms in older people with advanced kidney disease—whether they have conservative management or dialysis as their treatment plan.

Source: *Kidney International* 85, March 2014, Pgs. 487-491 | doi: 10.1038/ki.2013.467

4. PICKING AN ANTI-CLOTTING DRUG

Choosing an anti-clotting drug may be complicated. An article from the Mayo Clinic provides pertinent information, some of which is summarized below.

Once-daily dosing with warfarin (Coumadin) has a long track record with predictable benefits and risks. Since a number of foods and drugs alter its action, weekly or monthly blood test is necessary. It is difficult for some patients on warfarin to maintain coagulation rates within acceptable limits. However, an important advantage of this drug is the ease of rapidly reversing anti-clotting in the event of a bleeding incident.

Three drugs, dabigatran (Pradaxa), rivaroxaban (Xarelto), and apixaban (Eliquis), are new to the market this decade. Each is more effective than warfarin in preventing stroke. Moreover, these newer drugs have a distinct advantage in that their control of clotting is not affected by foods or other medicines; thus, costly and bothersome monitoring is unnecessary.

There are downsides with the newer drugs—(a) they are expensive and not covered by some drug insurance plans; (b) there is no acceptable agent to reverse the anti-clotting effect in the event of a bleeding incident; (c) they are not recommended for patients with a number of serious medical problems, including liver disease, kidney disease, and heart valve issues; (d) dabigatran and apixaban require twice-daily dosing (while rivaroxaban, like warfarin, requires once-daily dosing; and (e) compared to warfarin, dabigatran is more likely to cause stomach upset and, in those older than 75, a higher incidence of major bleeding events.

The Mayo Clinic summarizes the decision making as follows-- “There are many nuances to selecting the best anti-clotting drug for you. ... deciding on an anti-clotting drug is a personalized decision between you and your doctor.”

Sources: [www, HealthLetter.MayoClinic.com](http://www.HealthLetter.MayoClinic.com), June 2014, Pg. 5

ACP Internist Weekly, 20 May, 2014

5. ONE MORE GOOD REASON TO LOWER YOUR ANXIETY LEVEL

Anxiety can interfere with daily living and lead to physical and mental problems. A recent study provides another reason for making efforts to reduce anxiety—high levels of anxiety are associated with increased risk of stroke.

The 16-year study involved 6,000 men and women, between the ages of 25 and 74. The researchers concluded that the higher the anxiety level, the higher the risk of stroke. In comparison with participants who were relatively relaxed, the stroke risk was 14% higher for those “who had symptoms of anxiety, such as excess nervousness, tension, worry, strain, and stress”. Those with the most severe symptoms had a 33% higher risk of stroke.

The researchers emphasize that more study is needed to understand this association. They suggest that elevated anxiety leads to higher levels of stress hormone, heart rate, and blood pressure. Moreover, anxious people may tend to engage more in unhealthy habits such as smoking and failure to exercise. Patients are urged to seek treatment for anxiety.

Sources: *Johns Hopkins Health Alert*

Stroke, 45, 2014, Pgs. 438-

6. **KEEPING ALZHEIMER'S AT BAY**

A recently published study from the Cleveland Clinic concludes that "Exercise may help to keep the brain robust in people who have an increased risk of developing Alzheimer's disease." The results suggest that even moderate amounts of exercise may help to slow the progression of this disease.

The 100 subjects in the study were individuals, age 65 to 89, who showed no sign of memory loss. Some of the volunteers had an increased risk of developing Alzheimer's due to a family history of dementia or because they possessed a variant gene that is associated with significantly increased risk. The researchers used MRI brain scans to monitor changes in brain anatomy and to look for any effects of physical activity¹ on these changes.

The only statistically significant change in brain anatomy was a decrease in the size of the hippocampus in those who were at higher risk of developing Alzheimer's and who did not exercise regularly. Those at higher risk who did regularly exercise showed no such shrinkage. Subjects not at higher risk showed no shrinkage whether or not they exercised. "In effect, the brains of physically active volunteers at high risk for Alzheimer's looked just like the brains of people at much lower risk."

These research findings will need to be confirmed in a larger study, conducted for a longer time. However, they are significant in light of the conclusions from earlier studies, namely—

- *The hippocampus area of the brain is critical for memory processing.
- *The hippocampus is considerably shrunken in Alzheimer's patients.
- *This shrinking takes place years before the first symptoms appear.
- *For elders at higher risk, exercise is correlated with greater brain activity, less cognitive decline, and less frequent diagnosis of Alzheimer's.

Sources: *The New York Times*, 8 July, 2014

Frontiers in Aging Neuroscience, 6, 2014, Pgs. 61

¹ Physical activity is defined as three or more sessions/week of 15 minutes of swimming or brisk walking or 45 minutes of moderately difficult chores.

7. **QUICK QUERIES: A TRUE/FALSE QUIZ ON ABSTRACTS FROM THIS ISSUE**

_____ The trembling of essential tremor is observed only in the arms and hands.

_____ Elevated blood sugar is a major risk factor for stroke.

_____ Chronic kidney disease increases the risks for diabetes and heart disease.

_____ All patients currently taking warfarin (Coumadin) should switch to a newer anti-coagulant.

Answers: F, T, T, F