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Military Deployment and the Risk of PD

The risk of PD is higher among men who were deployed during either World War II or the Vietnam War, but not the Korean War, according to a study conducted at the Kaiser Permanente Northern California health maintenance organization during the years 1994-1995. Men with PD (n=300) were matched with men without PD (n=329). Information regarding military employment, occupation and other risk factors was collected and logistic regression was used to adjust for age and cigarette smoking. The frequency of military service was similar to men with PD (69%) and their age-matched controls (64%). When compared to men who had never served in the military, men who were deployed to one or more wars had an 80% greater risk of PD. Men that served in the military during peacetime, but never during a conflict, were not at increased risk of PD. The findings suggest that war-related exposures may influence the risk of developing PD.

<http://www.neurologyreviews.com/main.html> Vol. 13, No. 6, p. 34.

Pathological Gambling and Parkinson's Disease

Researchers at the Mayo Clinic studied eleven (11) patients with idiopathic PD who had recently developed pathological gambling habits. The medical therapy of these patients was compared to 17 patients with documented gambling habits and Parkinson's disease as reported in the literature. The gambling resolved when the dopamine agonist was tapered or discontinued in 8 of the 11 patients. Pramipexole (Mirapex) was the agonist in 68% of the cases - 9 of the 11 (Mayo Clinic) and 10 of the 17 (literature). The authors conclude that disproportionate stimulation of dopamine receptors might be responsible for pathological gambling in some patients. <http://archneur.ama-assn.org/cgi/content/full/62.9.noc50009v1>

Alpha-synuclein Aggregation and Pathogenesis of PD

Some cases of inherited early-onset PD are characterized by mutations in the protein, alpha-synuclein (alphaSyn). Molecules of this protein tend to clump together and form truncated fragments that act like seeds and soon produce a structure called a fibril. These

fibrils inhibit the enzyme that normally breaks down the alphaSyn protein and eventually produce more aggregates in the cells. Scientists are still debating which form of the alphaSyn protein actually damages the cells. These results suggest a precipitating role for truncated alphaSyn in the pathogenesis of disease involving alphaSyn aggregation such as familial PD, Huntington's disease, and Alzheimer's disease.

<http://www.jbc.org/cgi/content/abstract/280/24/22670>

MRI is Risky in Patients with Neurostimulators

The Food and Drug Administration (FDA) has issued a reminder about the risks incurred during MRI procedures with implanted neurologic stimulators. Serious injuries or deaths can occur in patients with implanted devices such as deep brain stimulators and vagus nerve, spinal cord, peripheral nerve, and neuromuscular stimulators. Permanent neurologic impairment and other serious conditions may occur states Daniel Schultz, MD, Director of the FDA's Center for Devices and Radiological Health. The notification includes explanations to patients about MRI procedures and a list of recommendations for radiologists and health care professionals. A copy of this public health notification is available on the FDA's website: <http://www.fda.gov/cdrh/safety/neurostim.html>

PINK1 Mutations in Early-Onset PD

The authors performed PINK1 mutation analysis of 51 families with autosomal recessive Parkinson disease and found two novel PINK1 mutations: one was a homozygous deletion (13516-18118del) and the other a homozygous missense mutation (C388R). Clinically, the patients with the deletion had dementia. Thus, early-onset PD with dementia may be considered PINK1-linked parkinsonism. (Brief communications).

<http://www.neurology.org/cgi/content/abstract/64/11/1955?etoc>

Quality of Life of Caregivers in PD

Many patients with chronic conditions are assisted by informal caregivers - usually relatives or friends. This situation will be challenged in the future with the advancing ages of elders and their informal caregivers. This study used a cross-sectional approach to assess the impact of PD on 64 pairs of patients and informal caregivers and to identify factors related to caregiver strain. The subjects completed neurological measures, quality of life assessments, and proxy evaluations of patients' health related quality of life. Multiple regression analysis determined that the patients' functional state (activities of daily living) and the patients' health related quality of life (both patient and proxy-assessed) proved to be the main predictors of caregivers' quality of life. Demographic characteristics were not related to caregivers' quality of life. The authors suggest that improvement in patients' functional state is critical to easing caregiver burden in PD.

<http://springerlink.metapress.com/app/home/contribution.asp?wasp=c4426c1ff7b04685a1c679edf67952b0&referrer=parent&backto=issue,16,29;journal,6,75;linkingpublicationresults,1:100213,1>

Identification of Motor and Nonmotor Wearing-Off in PD

This study (n=300) compared the sensitivity of a Patient Questionnaire (PQ) versus clinician information in recognizing symptoms of wearing-off in PD. The PQ contained 32 items representing motor and nonmotor wearing-off of symptoms. The clinicians

used information from the Unified Parkinson's Disease Rating Scale (UPDRS) Part IV, Question 36, and from a Clinical Assessment Question (CAQ) that inquired about loss of medication efficacy, wearing-off, sleepiness, dyskinesias, psychiatric complications, other dopaminergic side effects, or no side effects. The most sensitive tool was the PQ with 57.1% indicating symptoms of wearing-off. The UPDRS Question 36 identified wearing-off in 43.9% patients, and the CAQ noted wearing-off in 29.4% of subjects. All of these results differed significantly. Tremor was the most common motor wearing-off feature and tiredness the most common nonmotor wearing-off feature from the PQ.

<http://www3.interscience.wiley.com/cgi-bin/abstract/109926495/ABSTRACT>

Neuroleptic Malignant Syndrome: A Case Study

This article profiles one patient with neuroleptic malignant syndrome (NMS) and the importance of prompt identification, treatment and supportive care when NMS is suspected. NMS is a potentially lethal condition that has been described in patients with idiopathic PD after long-term dopaminergic medications are suddenly stopped or moderately decreased. If patients with PD develop severe rigidity, stupor, or hyperthermia, L-Dopa withdrawal should be suspected and the dopaminergic drug restarted as soon as possible to prevent rhabdomyolysis and renal failure. Nurses and other health care professionals have a responsibility to assess the patient and prevent a potentially lethal cascade of symptoms. The author of this article, Constance Ward, MSN, RN, BC is clinical coordinator of the PADRECC at the Michael E. DeBakey VAMC in Houston. <http://www.aann.org/journal/index.htm>

NEWS... In a Minute

► 2030 Forecast: Mostly Gray

The Census Bureau predicts that the elderly population in every state will grow faster than the total population, and seniors will outnumber school age children in 10 states in the next 25 years. More than one in four residents will be 65 and over by 2030 in the states of FL, WY, ME, NM, MT, and ND. The growth in the 65 and older population will be about 3 ½ times the growth of the nation as a whole.

► Support for Embryonic Stem-Cell Research Bill

The American Academy of Neurology (AAN) delivered its position statement on embryonic stem-cell research to the US Senate in early July to demonstrate its support for the Stem Cell Research Enhancement Act of 2005 (S.471). This bill, together with H.R. 810 would expand the funding scope of the National Institutes of Health to include support for stem-cell research involving embryos no longer intended for fertility. The complete position statement was published in Neurology (May 24, 2005).

► New Educational Resources

“**Parkinson Disease: Mind, Mood, & Memory**” is now available from the National Parkinson Foundation at www.parkinson.org. This handbook covers the neurobehavioral problems of depression, anxiety, psychosis, and dementia. Healthcare providers, patients, and families will benefit from the explanations and helpful tips.

This publication is edited by Rebecca Martine, APRN, CS, BC and John Duda, MD from the Philadelphia PADRECC.

The Parkinson's Disease Foundation (PDF) has announced that a new booklet is available: **“Diagnosis Parkinson's disease: You are not alone.”** This publication includes testimonials from persons living with PD, scientific and medical information, and helpful tips and resources. Contact PDF at (800) 457-6676 or visit www.pdf.org

The American Parkinson Disease Association, Inc. has produced a DVD **“Managing Parkinson's: Straight Talk and Hope.”** This is created especially for newly-diagnosed patients with PD and their loved ones. For further information, contact www.waparkinsons.org

Upcoming Events

► **Feb. 22-26, 2006.** The World Parkinson Congress (WPC) will be held in Washington, DC. The PADRECCs are an organizational sponsor. For more information: <http://www.worldpdcongress.org>

► **Oct. 29- Nov. 2, 2006.** 10th International Congress of Parkinson's Disease and Movement Disorders, Kyota, Japan. Offered by The Movement Disorder Society. <http://www.movementdisorders.org>

► **June 3-7, 2007.** 11th International Congress of Parkinson's Disease and Movement Disorders, Istanbul, Turkey. Offered by The Movement Disorder Society. <http://www.movementdisorders.org>

The National PD Consortium

Website: <http://www.va.gov/padrecc>

Mission statement: *...to support the provision of optimal care and education for veteran patients diagnosed with Parkinson's disease and related movement disorders through advocacy, scientific inquiry and enhanced clinical expertise.*

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