

Parkinson's Disease

Current Awareness

Bulletin

October 2015

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**Jason Ovens
Head of Library & Knowledge Services**

Title: Effect of acupuncture on gait in Parkinson's disease: a case report.

Citation: Acupuncture in Medicine, 01 August 2015, vol./is. 33/4(325-328), 09645284

Author(s): Shimpei Fukuda, Masato Egawa

Abstract: This case report describes the treatment of gait disturbance in a 64-year-old woman with Parkinson's disease. Needling for 10 min of areas of muscle stiffness and of muscle tonus areas in both lower limbs resulted in immediate temporary alleviation of muscle stiffness and muscle tonus of the bilateral anterior surface of the thigh muscle, the biceps femoris muscle, and the semitendinosus muscle for the duration of the treatment, with improvement in the disturbed gait of the patient. This response occurred regularly on repeated treatment, and was maintained between treatments.

Title: Listener Perception of Monopitch, Naturalness, and Intelligibility for Speakers With Parkinson's Disease.

Citation: Journal of Speech, Language & Hearing Research, 01 August 2015, vol./is. 58/4(1134-1144), 10924388

Author(s): Anand, Supraja, Stepp, Cara E.

Abstract: Purpose: Given the potential significance of speech naturalness to functional and social rehabilitation outcomes, the objective of this study was to examine the effect of listener perceptions of monopitch on speech naturalness and intelligibility in individuals with Parkinson's disease (PD). Method: Two short utterances were extracted from monologue samples of 16 speakers with PD and 5 age-matched adults without PD. Sixteen listeners evaluated these stimuli for monopitch, speech naturalness and intelligibility using the visual sort and rate method. Results: Naïve listeners can reliably judge monopitch, speech naturalness, and intelligibility with minimal familiarization. While monopitch and speech intelligibility were only moderately correlated, monopitch and speech naturalness were highly correlated. Conclusions: A great deal of attention is currently being paid to improvement of vocal loudness and thus speech intelligibility in PD. Our findings suggest that prosodic characteristics such as monopitch should be explored as adjuncts to this treatment of dysarthria in PD. Development of such prosodic treatments may enhance speech naturalness and thus improve quality of life.

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Available from *ProQuest* in [Journal of Speech, Language and Hearing Research](#)

Title: Parkinson's disease and gastrointestinal non motor symptoms: Diagnostic and therapeutic options - A practise guide

Citation: Journal of Parkinson's Disease, September 2015, vol./is. 5/3(647-658), 1877-7171;1877-718X (14 Sep 2015)

Author(s): Klingelhoefer L., Reichmann H.

Abstract: Gastrointestinal (GI) disturbances in Parkinson's disease (PD) are varied, involve the upper and lower GI tract and are evident in all stages of the disease. Recognition and re-evaluation of these non motor symptoms (NMS) due to the course of PD is important. They have a major impact on the efficacy of oral anti-parkinsonian medication and health related quality of life. Treatment needs to be tailored to the specific patient case with evaluation of PD stage, the specific

GI NMS and comorbidities. This article provides an overview of the pharmacological and non-pharmacological therapeutic options for GI NMS in PD.

Title: Nonpharmacological treatments for patients with Parkinson's disease

Citation: Movement Disorders, September 2015, vol./is. 30/11(1504-1520), 0885-3185;1531-8257 (15 Sep 2015)

Author(s): Bloem B.R., de Vries N.M., Ebersbach G.

Abstract: Since 2013, a number of studies have enhanced the literature and have guided clinicians on viable treatment interventions outside of pharmacotherapy and surgery. Thirty-three randomized controlled trials and one large observational study on exercise and physiotherapy were published in this period. Four randomized controlled trials focused on dance interventions, eight on treatment of cognition and behavior, two on occupational therapy, and two on speech and language therapy (the latter two specifically addressed dysphagia). Three randomized controlled trials focused on multidisciplinary care models, one study on telemedicine, and four studies on alternative interventions, including music therapy and mindfulness. These studies attest to the marked interest in these therapeutic approaches and the increasing evidence base that places nonpharmacological treatments firmly within the integrated repertoire of treatment options in Parkinson's disease

Title: Swallowing disorders in Parkinson's disease: impact of lingual pumping.

Citation: International Journal of Language & Communication Disorders, 01 September 2015, vol./is. 50/5(659-664), 13682822

Author(s): Argolo, Natalie, Sampaio, Marília, Pinho, Patrícia, Melo, Ailton, Nóbrega, Ana Caline

Abstract: Background Lingual pumping (LP) is a repetitive, involuntary, anteroposterior movement of the tongue on the soft palate that is executed prior to transferring the food bolus to the pharynx, but we also observed LP when multiple swallows were taken. LP may be associated with rigidity and bradykinesia in patients with Parkinson's disease (PD). This phenomenon tends to be more prevalent in dysphagic PD patients, and its impact on swallowing dynamics remains poorly understood. Objective To evaluate how LP interferes with the oral and pharyngeal phases of the swallowing of foods of different consistencies and volumes. Methods We used videofluoroscopy to study the swallowing of 69 PD patients performing 10 swallows of barium mixed with foods of different consistencies and volumes. Results LP was associated with the unstable intra-oral organization of the bolus, the loss of bolus control, the pharyngeal retention of food and food entering the airway. This abnormal movement was also associated with a shorter oral transit time and was found to be more prevalent with food of thicker consistencies. Conclusions LP is associated with swallowing incoordination and with food entering the airway. Preventive measures to minimise the pulmonary or nutritional consequences of this behaviour are necessary.

Title: Recognising the non-motor symptoms of Parkinson's disease.

Citation: British Journal of Neuroscience Nursing, 01 August 2015, vol./is. 11/4(164-164), 17470307

Author(s): Mehta, Sarah

Title: Assessing quality of life in Parkinson's: the nurse specialist's role.

Citation: British Journal of Neuroscience Nursing, 01 August 2015, vol./is. 11/4(166-169), 17470307

Author(s): Hand, Annette, Martin, Anne

Abstract: Parkinson's is a complex neurological disorder characterised by a large number of motor and non-motor features. As a consequence of these wide-ranging symptoms, quality of life (QoL) in patients with Parkinson's can be affected by many factors that can also vary depending on social support, activity, and environment. The large number of issues that could be raised in a single visit means it can be challenging to probe for additional disease-related problems that a patient or caregiver does not spontaneously report, although these may be the most important to the patient's QoL. To help address a patient's most important issues and QoL concerns, a group of experts set out to design a simple consultation aid to help facilitate a patient's preparation for, and participation in routine visits. The 'Parkinson's QoL Consultation Aid' is available for use and includes 17 prompts relating to Parkinson's and its potential impact on QoL.

Title: Traumatic brain injury in later life increases risk for Parkinson disease.

Citation: Annals of Neurology, 01 June 2015, vol./is. 77/6(987-995), 03645134

Author(s): Gardner, Raquel C, Burke, James F, Nettiksimmons, Jasmine, Goldman, Sam, Tanner, Caroline M, Yaffe, Kristine

Abstract: OBJECTIVE: Traumatic brain injury (TBI) is thought to be a risk factor for Parkinson disease (PD), but results are conflicting. Many studies do not account for confounding or reverse causation. We sought to address these concerns by quantifying risk of PD after TBI compared to non-TBI trauma (NTT; defined as fractures). METHODS: Using inpatient/emergency department (ED) International Classification of Disease, Ninth Revision code data for California hospitals from 2005-2006, we identified patients aged ≥ 55 years with TBI ($n = 52,393$) or NTT ($n = 113,406$) and without baseline PD or dementia who survived hospitalization. Using Kaplan-Meier estimates and Cox proportional hazards models (adjusted for age, sex, race/ethnicity, income, comorbidities, health care use, and trauma severity), we estimated risk of PD after TBI during follow-up ending in 2011. We also assessed interaction with mechanism of injury (fall vs nonfall) and effect of TBI severity (mild vs moderate/severe) and TBI frequency (1 TBI vs >1 TBI). RESULTS: TBI patients were significantly more likely to be diagnosed with PD compared to NTT patients (1.7% vs 1.1%, $p < 0.001$, adjusted hazard ratio [HR] = 1.44, 95% confidence interval [CI] = 1.31-1.58). Risk of PD was similar for TBI sustained via falls versus nonfalls (interaction $p = 0.6$). Assessment by TBI severity (mild TBI: HR = 1.24, 95% CI = 1.04-1.48; moderate/severe TBI: HR = 1.50, 95% CI = 1.35-1.66) and TBI frequency (1 TBI: HR = 1.45, 95% CI = 1.30-1.60; >1 TBI: HR = 1.87, 95% CI = 1.58-2.21) revealed a dose response. INTERPRETATION: Among patients aged ≥ 55 years presenting to inpatient/ED settings with trauma, TBI is associated with a 44% increased risk of developing PD over 5 to 7 years that is unlikely to be due to confounding or reverse causation. Ann Neurol 2015;77:987-995.

Title: Parkinson's disease dementia: a neural networks perspective.

Citation: Brain: A Journal of Neurology, 01 June 2015, vol./is. 138/Pt 6(1454-1476), 00068950

Author(s): Gratwicke, James, Jahanshahi, Marjan, Foltynie, Thomas

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Initial drug treatment in Parkinson's disease

BMJ 2015; 351 doi: <http://dx.doi.org/10.1136/bmj.h4669> (Published 18 September 2015) Cite this as: *BMJ* 2015;351:h4669

1. Sharon Muzerengi, clinical research fellow neurology¹²,
2. Carl E Clarke, professor of clinical neurology¹³

The bottom line

- First line treatments for Parkinson's disease include levodopa, non-ergot dopamine agonists, and monoamine oxidase B inhibitors
- Consider starting levodopa treatment in all (except young) patients, especially those with serious motor impairment (because it has greater motor benefits than other drugs) or cognitive impairment (because it has fewer neuropsychiatric complications than dopamine agonists)
- Monitor for motor complications (dyskinesias, motor fluctuations) and impulsivity and adjust doses accordingly
- Do not stop treatment abruptly because this may cause malignant hyperthermia (Parkinson hyperpyrexia syndrome)

Title: Partial Body Weight-Supported Treadmill Training in Patients With Parkinson Disease: Impact on Gait and Clinical Manifestation.

Citation: Archives of Physical Medicine & Rehabilitation, 01 September 2015, vol./is. 96/9(1557-1565), 00039993

Author(s): Ganesan, Mohan, Sathyaprabha, Talakad N., Pal, Pramod Kumar, Gupta, Anupam

Abstract: Objective To evaluate the effect of conventional gait training (CGT) and partial weight-supported treadmill training (PWSTT) on gait and clinical manifestation. Design Prospective experimental research design. Setting Hospital. Participants Patients with idiopathic Parkinson disease (PD) (N=60; mean age, 58.15±8.7y) on stable dosage of dopaminomimetic drugs were randomly assigned into the 3 following groups (20 patients in each group): (1) nonexercising PD group, (2) CGT group, and (3) PWSTT group. Interventions The interventions included in the study were CGT and PWSTT. The sessions of the CGT and PWSTT groups were given in patient's self-reported best on status after regular medications. The interventions were given for 30min/d, 4d/wk, for 4 weeks (16 sessions). Main Outcome Measures Clinical severity was measured by the Unified Parkinson Disease Rating Scale (UPDRS) and its subscores. Gait was measured by 2 minutes of treadmill walking and the 10-m walk test. Outcome measures were evaluated in their best on status at baseline and after the second and fourth weeks. Results Four weeks of CGT and PWSTT gait training showed significant improvements of UPDRS scores, its subscores, and gait performance measures. Moreover, the effects of PWSTT were significantly better than CGT on most measures. Conclusions PWSTT is a promising intervention tool to improve the clinical and gait outcome measures in patients with PD.

Title: How Should Pushing Off or the Use of Assistive Devices Be Incorporated in the Timed Up and Go for Persons With Parkinson Disease?

Citation: Archives of Physical Medicine & Rehabilitation, 01 September 2015, vol./is. 96/9(1728-1732), 00039993

Author(s): Stegemöller, Elizabeth L., Schmidt, Peter, Hass, Chris, Malaty, Irene, Okun, Michael S.

Abstract: Objectives To determine (1) the relationship between assisted timed Up and Go (TUG) performance and the Parkinson's Disease Questionnaire-39 (PDQ-39), and (2) whether adjusting the TUG score (adding time) improves the relationship between TUG performance and the PDQ-39 in persons with Parkinson disease (PD) who use assistive devices or push off, or both. Design Cross-sectional. Setting Twenty participating National Parkinson Foundation Centers of Excellence. Participants Data were obtained from participants (N=6624) without exclusion at the 20 participating sites. Interventions Not applicable. Main Outcome Measures The relationship between TUG scores and PDQ-39 mobility scores was determined using the method of linear least squares. Adjusted scores were determined through minimizing the sum of the squared error. Results The correlation between assisted TUG scores and PDQ-39 mobility scores was slightly lower ($R^2 = .384$) compared with the correlation between nonassisted TUG scores and PDQ-39 mobility scores ($R^2 = .409$). Adjusting assisted TUG performance scores for push off and for use of an assistive device resulted in a modest increase in correlation ($R^2 = .399$). Conclusions Applying adjustments to assisted TUG may provide clinically important information for evaluating balance, mobility, and falls, and for determining the most effective therapeutic strategies for persons with PD.

Title: Measurement Characteristics and Clinical Utility of the Parkinson Disease Quality of Life Measure (39- and 8-item versions) in Individuals With Parkinson Disease.

Citation: Archives of Physical Medicine & Rehabilitation, 01 August 2015, vol./is. 96/8(1551-1552), 00039993

Author(s): Kegelmeyer, Deborah

Title: Measurement of anteriorly flexed trunk posture in Parkinson's disease (PD): a systematic review.

Citation: Physical Therapy Reviews, 01 August 2015, vol./is. 20/4(225-232), 10833196

Author(s): Nair, Prajakta, W. Bohannon, Richard, Devaney, Laurie, Livingston, Jill

Title: A Structural Model of Health-Related Quality of Life in Parkinson's Disease Patients.

Citation: Western Journal of Nursing Research, 01 August 2015, vol./is. 37/8(1062-1080), 01939459

Author(s): Lee, JuHee, Choi, MoonKi, Jung, Dukyoo, Sohn, Young H., Hong, JinYong

Sources Used

The following databases are searched on a regular basis in the development of this bulletin: Amed, British Nursing Index, Cinahl, Medline

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