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Parkinson's Disease

Current Awareness Bulletin

July 2011

For any references where there is a link to the full text please use your NHS Athens username & password to access. (if you need any help with this please let us know)

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Academy Library x4897 or ruh-tr.library@nhs.net

Jason Ovens
Library & Knowledge Service Manager

Healthcare you can Trust

References from the Cochrane Library

This quarter there were now new systematic reviews.

Recent References from Amed (a database for AHPs)

Title: Psychometric properties of activity, self-efficacy, and quality-of-life measures in individuals with Parkinson disease

Citation: Physiotherapy Canada, December 2011, vol./is. 63/1(47-57), 0300-0508 (2011 Winter)

Author(s): Dal Bello-Haas V, Kiassen L, Sheppard MS, Metcalfe A

Language: English

Abstract: Purpose: To examine the psychometric properties of six outcome measures in people with Parkinson disease (PD) Method: Twenty four participants completed the following twice within 2 weeks the timed up and go test (TUG) Northwestern University Disability Scale (NUDS) Schwab & England ADL Scale (S&E). Activities specific Balance Confidence (ABC) Scale PD Questionnaire - Short Form (PDQ 8) and Stanford Self-Efficacy for Managing Chronic Disease 6 Item Scale (S&E). Internal consistency test-retest reliability (ICC[3,1]) and minimal detectable change (MDC) scores were calculated. Convergent and discriminant validity of the ABC were examined. Results: Cronbach's alpha scores for the NUDS ABC PDQ-8 and SSE were 0.47, 0.92, 072 and 0.91 respectively. The intra class correlation coefficient (ICC[3 1]) for the TUG was 069 and could be improved by averaging two trials ICCs for the NUDS S&E ABC PDQ-8 and SSE were 0.56, 0.70, 0.79, 0.82 and 0.72 respectively. The ABC correlated with the TUG (r= -0.44 p = 0.03) and with PDQ-8 (r8 = 0.51, p = 0.01) and NUDS (r8 = 0.48, p = 0.02) walking items. The ABC was able to discriminate between stages 1 and 3 of disease progression but not between stages 1 and 2 which suggests that the ABC can distinguish large differences in disease progression but cannot detect more subtle differences. Conclusions: Homogeneity of the ABC, PDQ-8 and SSE is good to excellent. Test-retest reliability scores of all measures except the NUDS are moderate to good. The ABC is a valid measure for use in PD The MDC statistic may be useful for interpreting group score changes.

Publication Type: Journal Article

Source: AMED

Title: Measuring quality of life in Parkinson's disease: Selection of-an-appropriate health-related quality of life instrument

Citation: Physiotherapy (London), March 2011, vol./is. 97/1(83-9), 0031-9406 (2011 Mar)

Author(s): Soh SE, McGinley J, Morris ME

Language: English

Abstract: There is growing awareness of the need to measure quality of life (QOL) in people with Parkinson's disease during routine physiotherapy assessment. This paper highlights why it is

important for clinicians to focus particularly on health-related QOL (HRQOL) when assessing people with this disabling and progressive neurological condition, and provides a guide for selection of the most appropriate instruments for measuring HRQOL. Using measures of health utility, health status and well-being, physiotherapists can better understand the social, physical and emotional consequences of Parkinson's disease.

Publication Type: Journal Article

Source: AMED

Title: Everyday executive function is associated with activity participation in Parkinson disease without dementia

Citation: OTJR Occup Particip Health, December 2011, vol./is. 31/1 Suppl, 1539-4492 (2011 Winter)

Author(s): Foster ER, Hershey T

Language: English

Abstract: Individuals with Parkinson disease (PD) who do not have dementia reliably demonstrate mild executive deficits on laboratory-based tests, but the impact of these deficits on occupational performance is unclear. The purpose of this study was to determine the relevance of executive dysfunction in PD without dementia to instrumental, leisure, and social activity participation. Twenty-four individuals with PD and 30 matched adult volunteers performed an experimental working memory test and rated their everyday executive function and activity participation. Participants with PD had worse working memory performance, tended to report more everyday executive problems, and reported lower activity participation compared to controls. Within PD, lower everyday executive function was associated with reduced activity participation after controlling for motor dysfunction and depressive symptoms. Executive function is an independent predictor of complex activity participation in early PD. These results suggest the need for occupational therapists to consider executive dysfunction during evaluation and treatment of individuals with PD.

Publication Type: Journal Article

Source: AMED

Title: Treating disordered speech and voice in Parkinson's disease online: A randomized controlled non-inferiority trial

Citation: International Journal of Language & Communication Disorders, January 2011, vol./is. 46/1(1-16), 1368-2822 (2011 Jan-Feb)

Author(s): Constantinescu G, Theodoros D, Russell T, Ward E, Wilson S, Wootton R

Language: English

Abstract: Background: Telerehabilitation may be a feasible solution to the current problems faced by people with Parkinson's disease in accessing speech pathology services. Aim: To investigate the validity and reliability of online delivery of the Lee Silverman Voice Treatment (LSVT(R)) for the speech and voice disorder associated with Parkinson's disease. Method & Procedures: Thirty-four

participants with Parkinson's disease and mild-to-moderate hypokinetic dysarthria took part in the randomized controlled non-inferiority laboratory trial and received the LSVT(R) in either the online or the face-to-face environment. Online sessions were conducted via two personal computer-based videoconferencing systems with real-time and store-and-forward capabilities operating on a 128 kbit/s Internet connection. Participants were assessed pre- and post-treatment on acoustic measures of mean vocal sound pressure level, phonation time, maximum fundamental frequency range, and perceptual measures of voice, articulatory precision and speech intelligibility. Outcomes & Results: Non-inferiority of the online LSVT(R) modality was confirmed for the primary outcome measure of mean change in sound pressure level on a monologue task. Additionally, non-significant main effects for the LSVT(R) environment, dysarthria severity, and interaction effects were obtained for all outcomes measures. Significant improvements following the LSVT were also noted on the majority of measures. The LSVT(R) was successfully delivered online, although some networking difficulties were encountered on a few occasions. High participant satisfaction was reported overall. Conclusions & Implications: Online treatment for hypokinetic dysarthria associated with Parkinson's disease appears to be clinically valid and reliable. Suggestions for future research are outlined.

Publication Type: Randomized Controlled Trial

Source: AMED

Title: Motor imagery ability in patients with early- and mid-stage Parkinson disease

Citation: Neurorehabilitation and Neural Repair, February 2011, vol./is. 25/2(168-77), 1545-9683 (2011 Feb)

Author(s): Heremans E, Feys P, Nieuwboer A, Vercruysse S, Vandenberghe W, Sharma N, Helsen W

Language: English

Abstract: Background. Motor imagery has recently gained attention as a promising new rehabilitation method for patients with neurological disorders. Up to now, however, it has been unclear whether this practice method can also be successfully applied in the rehabilitation of patients with Parkinson disease (PD). Objective. This study aimed to investigate whether the motor imagery ability of patients with PD is still intact despite basal ganglia dysfunctioning. Methods. A total of 14 patients with early- and mid-stage PD (Hoehn and Yahr 1 - 3) and 14 healthy controls were evaluated by means of an extensive imagery ability assessment battery, consisting of 2 questionnaires, the Chaotic Motor Imagery Assessment battery, and a test based on mental chronometry. Results. PD patients performed the imagery tasks more slowly than controls, but the motor imagery vividness and accuracy of most patients were well preserved. Conclusions. These results are promising regarding the potential use of motor imagery practice in the rehabilitation of patients with PD.

Publication Type: Journal Article

Source: AMED

Title: Allied health professional's views on palliative care for people with advanced Parkinson's disease

Citation: International Journal of Therapy and Rehabilitation, January 2011, vol./is. 18/1(48-58), 1741-1645 (2011 Jan)

Author(s): Waldron M, Kernohan WG, Hasson F, Foster S, Cochrane B, Payne C

Language: English

Abstract: Aims: Allied health professionals (AHPs) have a key role in the delivery of palliative care through rehabilitation. However; evidence suggests that rehabilitation remains an area of neglect in palliative care. This study explores the views of allied health professionals in delivering rehabilitation in palliative care to people with Parkinson s disease. Methods: Twelve allied health professionals, from both generalist and specialist settings, who had experience of working with people with advanced Parkinson's disease and/or palliative care took part in interviews and/or focus groups. Findings: Participants viewed palliative care as holistic care, however; the rehabilitation care they provided was impeded by a number of personal and organisational barriers, and negative perceptions. Misconceptions as to the value of rehabilitation in the palliative stage and a lack of training resulted in uncertainty as to when and how it could be introduced. While the importance of early referral to AHP rehabilitation services was highlighted, organisational and administrative barriers prevented many people from accessing such care. Conclusions: Many health professionals have a role in palliative rehabilitation, but barriers prevent early referral and ongoing access to such services. There is a need to educate professionals in the principles of palliative rehabilitation, combined with providing targeted resources to promote shared care and responsibility.

Publication Type: Journal Article

Source: AMED

Full Text:
Available in *fulltext* at EBSCO Host

Title: Boxing training for patients with Parkinson disease: A case series

Citation: Physical Therapy, January 2011, vol./is. 91/1(132-42), 0031-9023 (2011 Jan)

Author(s): Combs SA, Diehl MD, Staples WH, Conn L, Davis K, Lewis N, Schaneman K

Language: English

Abstract: Background and Purpose. A nontraditional form of exercise recently applied for patients with Parkinson disease (PD) is boxing training. The primary purpose of this case series is to describe the effects of disease severity and duration of boxing training (short term and long term) on changes in balance, mobility, and quality of life for patients with mild or moderate to severe PD. The feasibility and safety of the boxing training program also were assessed. Case Descriptions. Six patients with idiopathic PD attended 24 to 36 boxing training sessions for 12 weeks, with the option of continuing the training for an additional 24 weeks (a seventh patient attended sessions for only 4 weeks). The 90-minute sessions included boxing drills and traditional stretching, strengthening, and endurance exercises. Outcomes were tested at the baseline and after 12, 24, and 36 weeks of boxing sessions (12-, 24-, and 36-week tests). The outcome measures were the Functional Reach Test, Berg Balance Scale, Activities-specific Balance Confidence Scale, Timed 'Up & Go' Test, Six-Minute Walk Test, gait speed, cadence, stride length, step width, activities of daily living and motor examination subscales of the Unified Parkinson Disease Rating Scale, and Parkinson Disease Quality of Life Scale. Outcomes. Six patients completed all phases of the case series, showed improvements on at least 5 of the 12 outcome measures over the baseline at the

12-week test, and showed continued improvements at the 24- and 36-week tests. Patients with mild PD typically showed improvements earlier than those with moderate to severe PD. Discussion. Despite the progressive nature of PD, the patients in this case series showed short-term and long-term improvements in balance, gait, activities of daily living, and quality of life after the boxing training program. A longer duration of training was necessary for patients with moderate to severe PD to show maximal training outcomes. The boxing training program was feasible and safe for these patients with PD.

Publication Type: Case Reports

Source: AMED

Full Text:
Available in *fulltext* at EBSCO Host

Title: Minimal detectable change of the timed 'up & go' test and the dynamic gait index in people with Parkinson disease

Citation: Physical Therapy, January 2011, vol./is. 91/1(114-21), 0031-9023 (2011 Jan)

Author(s): Huang SL, Hsieh CL, Wu RM, Tai CH, Lin CH, Lu WS

Language: English

Abstract: Background. The minimal detectable change (MDC) is the smallest amount of difference in individual scores that represents true change (beyond random measurement error). The MDCs of the Timed 'Up & Go' Test (TUG) and the Dynamic Gait Index (DGI) in people with Parkinson disease (PD) are largely unknown, limiting the interpretability of the change scores of both measures. Objective. The purpose of this study was to estimate the MDCs of the TUG and the DGI in people with PD. Design. This investigation was a prospective cohort study. Methods. Seventy-two participants were recruited from special clinics for movement disorders at a university hospital. Their mean age was 67.5 years, and 61% were men. All participants completed the TUG and the DGI assessments twice, about 14 days apart. The MDC was calculated from the standard error of measurement. The percentage MDC (MDC%) was calculated as the MDC divided by the mean of all scores for the sample. Furthermore, the intraclass correlation coefficient was used to examine the reproducibility between testing sessions (test-retest reliability). Results. The respective MDC and MDC% of the TUG were 3.5 seconds and 29.8, and those of the DGI were 2.9 points and 13.3. The test-retest reliability values for the TUG and the DGI were high; the intraclass correlation coefficients were .80 and .84, respectively. Limitations. The study sample was a convenience sample, and the participants had mild to moderately severe PD. Conclusions. The results showed that the TUG and the DGI have generally acceptable random measurement error and test-retest reliability. These findings should help clinicians and researchers determine whether a change in an individual patient with PD is a true change.

Publication Type: Journal Article

Source: AMED

Full Text:
Available in *fulltext* at EBSCO Host

Title: Functional gait assessment and balance evaluation system test: Reliability, validity, sensitivity, and specificity for identifying individuals with Parkinson disease who fall

Citation: Physical Therapy, January 2011, vol./is. 91/1(102-13), 0031-9023 (2011 Jan)

Author(s): Leddy AL, Crowner BE, Earhart GM

Language: English

Abstract: Background. Gait impairments, balance impairments, and falls are prevalent in individuals with Parkinson disease (PD). Although the Berg Balance Scale (BBS) can be considered the reference standard for the determination of fall risk, it has a noted ceiling effect. Development of ceiling-free measures that can assess balance and are good at discriminating 'fallers' from 'nonfallers' is needed. Objective. The purpose of this study was to compare the Functional Gait Assessment (FGA) and the Balance Evaluation Systems Test (BESTest) with the BBS among individuals with PD and evaluate the tests' reliability, validity, and discriminatory sensitivity and specificity for fallers versus nonfallers. Design. This was an observational study of community-dwelling individuals with idiopathic PD. Methods. The BBS, FGA, and BESTest were administered to 80 individuals with PD. Interrater reliability (n = 15) was assessed by 3 raters. Test-retest reliability was based on 2 tests of participants (n = 24), 2 weeks apart. Intraclass correlation coefficients (2,1) were used to calculate reliability, and Spearman correlation coefficients were used to assess validity. Cutoff points, sensitivity, and specificity were based on receiver operating characteristic plots. Results. Test-retest reliability was .80 for the BBS, .91 for the FGA, and .88 for the BESTest. Interrater reliability was greater than .93 for all 3 tests. The FGA and BESTest were correlated with the BBS (r = .78 and r = .87, respectively). Cutoff scores to identify fallers were 47/56 for the BBS, 15/30 for the FGA, and 69% for the BESTest. The overall accuracy (area under the curve) for the BBS, FGA, and BESTest was .79, .80, and .85, respectively. Limitations. Fall reports were retrospective. Conclusion. Both the FGA and the BESTest have reliability and validity for assessing balance in individuals with PD. The BESTest is most sensitive for identifying fallers.

Publication Type: Journal Article

Source: AMED

Full Text:
Available in *fulltext* at EBSCO Host

Title: The use of subcutaneous scopolamine as a palliative treatment in Parkinson's disease

Citation: Palliative Medicine, January 2011, vol./is. 25/1(92-3), 0269-2163 (2011 Jan)

Author(s): Perez LM, Farriols C, Puente V, Planas J, Ruiz I

Language: English

Abstract: Parkinson's disease (PD) is a degenerative, chronic and irreversible condition. Palliative medicine may play an important role in the care of patients with PD to maintain the quality of life. Scopolamine is a non-competitive antagonist at muscarinic acetylcholine receptors, which was used many years ago in the treatment for PD. To the best of our knowledge, there are no previously reported cases of the use of scopolamine for symptom relief at the end of life in patients with PD. The case reported here shows that treatment with a subcutaneous scopolamine was a useful alternative in a terminal cancer patient with severe tremors unable to take oral PD medication.

Publication Type: Journal Article

Source: AMED

Recent References from British Nursing Index (a UK database for nurses)

Title: Palliative care in Parkinson's disease.

Citation: Nursing Times, June 2011, vol./is. 107/24(22-5), 0954-7762 (2011 21 Jun)

Author(s): Kernohan, G, Waldron, M, Hardyway, D

Abstract: Principles of palliative care for patients with Parkinson disease. The 4 stages of care for Parkinson disease, diagnosis, maintenance, complex and end-stage, are identified and the roles of hospices and the Parkinson disease nurse specialist are explained. Training for nurses and other care staff is briefly discussed. 25 refs.

Source: BNI

Full Text:
Available in *print* at Bath Academy Library

Title: Administering medications for Parkinson disease on time.

Citation: Nursing, March 2011, vol./is. 41/3(66), 0360-4039 (2011 Mar)

Author(s): Kovosi, S, Freeman, M

Abstract: Clinical Queries series. The need for patients with Parkinson disease to receive their levodopa or carbidopa medication on time. Advice is given for ensuring that medication is given at the correct time when patients are admitted to hospital. 5 refs.

Source: BNI

Title: Parkinson's and associated mental health issues.

Citation: Nursing & Residential Care, May 2011, vol./is. 13/5(248-50), 1465-9301 (2011 May)

Author(s): Heisters, D

Abstract: Impact of Parkinson disease on mental health. Cognitive symptoms, including anxiety, depression, hallucinations and dementia, are described and strategies for nursing home staff are suggested. 6 refs.

Source: BNI

Full Text:
Available in *fulltext* at EBSCO Host

Title: Parkinson's: symptoms, treatments and research.

Citation: Br J Nursing, May 2011, vol./is. 20/9(548-54), 0966-0461 (2011 13 May)

Author(s): Heisters, D

Abstract: Causes, symptoms and treatment of Parkinson Disease. Motor and non-motor symptoms, the main types of drugs used and the importance of receiving medication on time are described. Non-drug therapies including occupational and physiotherapy, speech and language therapy and deep brain stimulation are outlined and research into understanding nerve cell death and early diagnosis is discussed. 1 ref.

Source: BNI

Full Text:
Available in *fulltext* at EBSCO Host

Title: Living and coping with Parkinson's disease: perceptions of informal carers.

Citation: Palliative Medicine, March 2011, vol./is. 25/2(177-82), 0269-2163 (2011 Mar)

Author(s): McLaughlin, D, Hasson, F, Kernohan, W

Abstract: Qualitative research into the experiences of informal family carers of people with Parkinson disease living in Northern Ireland. Interviews with carers were used to assess economic implications, information needs, coping mechanisms and the burden of care. 32 refs.

Source: BNI

Title: Coping processes and health-related quality of life in Parkinson's disease.

Citation: Int J Geriatric Psychiatry, March 2011, vol./is. 26/3(247-55), 0885-6230 (2011 Mar)

Author(s): Bucks, R, Cruise, K, Skinner, T

Abstract: Research in Australia examining health-related quality of life (HRQoL) among people diagnosed with Parkinson disease. Assessment of participants for mood and Parkinson-related quality of life, coping and problem-solving strategies and predictors of HRQoL outcomes are described. 53 refs.

Source: BNI

Full Text:
Available in *fulltext* at Wiley

Title: Living with advanced Parkinson's disease: a constant struggle with unpredictability.

Citation: J Advanced Nursing, February 2011, vol./is. 67/2(408-17), 0309-2402 (2011 Feb)

Author(s): Haahr, A, Kirkevold, M, Hall, E

Abstract: Qualitative research in Denmark into the experience of people with advanced Parkinson disease (PD) of living with the condition before and after undergoing deep brain stimulation (DBS). Interviews were used to examine how PD affected all aspects of their lives. The struggle with the unpredictability of advanced PD and their experiences of DBS are discussed. 45 refs.

Source: BNI

Full Text:
Available in *fulltext* at Wiley

Recent References from Cinahl (a worldwide database for nurses & AHPs)

Title: Culturally competent care for Parkinson disease.

Citation: Nursing Clinics of North America, 01 June 2011, vol./is. 46/2(171-180), 00296465

Author(s): Hermanns, Melinda

Language: English

Abstract: Findings from a qualitative ethnographic study that examined the experiences of a group of persons with Parkinson disease are presented in this article. Culturally competent care for persons who share a common illness, such as Parkinson disease, is facilitated when the findings are incorporated into the Clinically Relevant Continuum Model. Use of this model allows providers to evaluate and use appropriate published evidence in addition to provider expertise and patient preferences and values., Copyright © 2011 by Elsevier Inc.

Publication Type: journal article

Source: CINAHL

Title: Measuring participation in individuals with Parkinson disease: relationships with disease severity, quality of life, and mobility.

Citation: Disability & Rehabilitation, 01 August 2011, vol./is. 33/15/16(1440-1446), 09638288

Author(s): Duncan, Ryan P., Earhart, Gammon M.

Language: English

Abstract: Purpose. Our aims were to: (1) describe participation in people with Parkinson disease (PD), (2) evaluate the relationship between quality of life and participation and (3) determine the mobliity measures which are predictive of participation. Methods. Participants with idiopathic PD (n == 62) were tested off medication for participation (Activity Card Sort), quality of life (PDQ-39), disease severity (MDS-UPDRS) and mobility (Berg Balance Scale, Five Time Sit to Stand (FTSTS), Six Minute Walk, forward walking velocity, dual-task walking velocity and Freezing of Gait Questionnaire (FOGQ)). Relationships of all variables to participation were examined using Pearson correlations. Subsequent regression analysis was employed to determine the mobility measures which best predicted the participation. Results. Participants with PD retained, on average, 78.3%% (SD == 15.6%%) of total activities. Participation was negatively correlated with all PDQ-39 domains (r range âˆ'â€'0.36 to âˆ'â€'0.78, all p < 0.005) with the mobility domain having the strongest correlation. All mobility measures were significantly correlated with participation, with the final regression model including only FTSTS and FOGQ which combined explained 37%% of the variance in participation. Conclusions. Participation is highly related to mobility-related QOL and may be most impacted by ability to stand up from a chair and freezing of gait in those with PD.

Publication Type: journal article

Source: CINAHL

Title: Meta-analysis of the relationship between Parkinson disease and melanoma.

Citation: Neurology, 07 June 2011, vol./is. 76/23(2002-2009), 00283878

Author(s): Liu R, Gao X, Lu Y, Chen H

Language: English

Abstract: OBJECTIVE: To assess the epidemiologic evidence on melanoma in relation to Parkinson disease (PD) via systematic review and meta-analysis. METHODS: Epidemiologic studies on melanoma and PD were searched using PubMed, Web of Science, Scoups, and Embase (1965 through June 2010). Eligible studies were those that reported risk estimates of melanoma among patients with PD or vice versa. Pooled odds ratios (ORs) with 95% confidence intervals (CIs) were calculated using random-effects models. RESULTS: We identified 12 eligible publications on melanoma and PD: 8 had fewer than 10 cases with both PD and melanoma, and 7 provided gender-specific results. The pooled OR was 2.11 (95% CI 1.26-3.54) overall, 2.04 (1.55-2.69) for men, and 1.52 (0.85-2.75) for women. Analyses by temporal relationship found that melanoma occurrence was significantly higher after the diagnosis of PD (OR 3.61, 95% CI 1.49-8.77), but not before PD diagnosis (OR 1.07, 95% CI 0.62-1.84). Further analyses revealed that the lack of significance in the latter analysis was due to one study, which when excluded resulted in a significant association (OR 1.44, 95% CI 1.06-1.96). We also analyzed nonmelanoma skin cancers in relation to PD and found no significant relationship (OR 1.11, 95% CI 0.94-1.30). CONCLUSIONS: Collective epidemiologic evidence supports an association of PD with melanoma. Further research is needed to examine the nature and mechanisms of this relationship.

Publication Type: journal article

Source: CINAHL

Title: Behavioral therapy to treat urinary incontinence in Parkinson disease.

Citation: Neurology, 10 May 2011, vol./is. 76/19(1631-1634), 00283878

Author(s): Vaughan CP, Juncos JL, Burgio KL, Goode PS, Wolf RA, Johnson TM 2nd

Language: English

Abstract: OBJECTIVE: To assess the feasibility and efficacy of exercise-based behavioral therapy to treat urinary incontinence (UI) in older adults with Parkinson disease (PD). METHODS: Participants with PD >=50 years with >=4 UI episodes on a 7-day bladder diary were recruited from movement disorders clinics. In 5 visits over 8 weeks, participants learned pelvic floor muscle exercises using computer-assisted EMG biofeedback, and bladder control strategies including urge suppression. Bladder diaries were used to reinforce techniques and monitor the primary outcome of UI frequency. Secondary outcomes included additional reporting of lower urinary tract symptoms, symptom bother, and quality of life (QOL) using the International Consultation on Incontinence Questionnaire for overactive bladder (ICIQ-OAB). RESULTS: Twenty participants were enrolled (90% male, age 66.5 Â± 6.2 [mean Â± SD], with PD for 6.9 Â± 5.4 years) and 17

completed the study. The median (interquartile range) weekly frequency of baseline UI episodes was 9 (4-11) and following intervention was 1 (0-3), representing an 83.3% reduction (45.5-100.0, p = 0.0001). QOL scores on the ICIQ-OAB improved from 71.1 Â± 23.9 to 54.7 Â± 15.4 (p = 0.002). CONCLUSIONS: In this uncontrolled pilot study of an exercise-based, biofeedback-assisted behavioral intervention, older participants with PD demonstrated statistically significant and clinically meaningful reductions in frequency of UI and improvement in QOL. Randomized controlled trials to assess behavioral therapies for UI in patients with PD are warranted. Classification of evidence: This study provides Class IV evidence that exercise-based, biofeedback-assisted behavioral intervention can reduce UI frequency in patients >50 years old with PD.

Publication Type: journal article

Source: CINAHL

Title: The impact of Parkinson's disease as a comorbid diagnosis.

Citation: Age & Ageing, 01 May 2011, vol./is. 40/3(294-296), 00020729

Author(s): Phillips, Aaron Ratnaker, Genever, Richard William

Language: English

Abstract: Clinicians, departments and trusts are compared using Hospital Standardised Mortality Ratios. The benchmarking process makes corrections for patients' past medical histories, using a tool called the Charlson Index of Co-morbidity. Patients with any of 17 conditions receive an adjustment to their expected mortality and length of stay. Although the weighting of these conditions has been altered to take account of advances in medical practice, there have been no conditions added to the list since Charlson's original paper of 1986.The Charlson Index of Co-morbidity does not make a correction for Parkinson's disease. We describe evidence of the impact of Parkinson's disease as a co-morbid condition and recommend that, in future, benchmarking processes should take account of this important and common diagnosis.

Publication Type: journal article

Source: CINAHL

Title: Do Co-Morbidities and Cognition Impact Functional Change and Discharge Needs in Parkinson Disease?

Citation: American Journal of Physical Medicine & Rehabilitation, 01 April 2011, vol./is. 90/4(272-280), 08949115

Author(s): Marciniak, Christina M., Choo, Clara M., Toledo, Santiago D., Semik, Patrick E., Aegesen, Andrea L.

Language: English

Abstract: Objective: The aim of this study was to assess the impact of cognition, baseline motor function, and co-morbid medical conditions on functional change, discharge destination, and discharge needs in patients admitted to acute rehabilitation for Parkinson-related impairments. Design: This retrospective chart review study evaluated the records of patients admitted to acute

rehabilitation over a 5-yr period with a primary impairment category of parkinsonism. Functional status was measured at admission and discharge; 3-mo follow-up function was also collected in a sample of discharged patients. Results: Eighty-nine patients (mean age, 74.26 yrs) were admitted over the 5-yr time frame. A more complicated Medicare tier diagnosis (tier 2) was associated with lower total and motor score Functional Independence Measure gains compared with tier 3 (P = 0.009 and P = 0.016, respectively). Cognitive scores at admission were not related to need for caregivers upon discharge. Overall Functional Independence Measure gain (adjusted R2 = 0.073, P = 0.006) and Functional Independence Measure gain efficiency (adjusted R2 = 0.142, P < 0.001) inversely correlated with age. At the 3-mo follow-up, a random sample (38%) of patients contacted postdischarge demonstrated continued improvements. Conclusions: Significant improvement may be seen after acute rehabilitation in patients with Parkinson disease, irrespective of cognitive impairment. More complicated medical tier diagnoses result in less Functional Independence Measure gain, and older individuals with Parkinson disease are more likely to show less functional change. However, functional improvements are still statistically significant.

Publication Type: journal article

Source: CINAHL

Title: Changes in Executive Function After Acute Bouts of Passive Cycling in Parkinson's Disease.

Citation: Journal of Aging & Physical Activity, 01 April 2011, vol./is. 19/2(87-98), 10638652

Author(s): Ridgel, Angela L., Chul-Ho Kim, Fickes, Emily J., Muller, Matthew D., Alberts, Jay L.

Language: English

Abstract: Individuals with Parkinson's disease (PD) often experience cognitive declines. Although pharmacologic therapies are helpful in treating motor deficits in PD, they do not appear to be effective for cognitive complications. Acute bouts of moderate aerobic exercise have been shown to improve cognitive function in healthy adults. However, individuals with PD often have difficulty with exercise. This study examined the effects of passive leg cycling on executive function in PD. Executive function was assessed with Trail-Making Test (TMT) A and B before and alter passive leg cycling. Significant improvements on the TMT-B test occurred after passive leg cycling. Furthermore, the difference between limes to complete the TMT-B and TMT-A significantly decreased from precycling to postcycling. Improved executive function after passive cycling may be a result of increases in cerebral blood flow. These findings suggest that passive exercise could be a concurrent therapy for cognitive decline in PD.

Publication Type: journal article

Source: CINAHL

Title: Self-reported dysphagia and its correlates within a prevalent population of people with Parkinson's disease.

Citation: Dysphagia (0179051X), 01 March 2011, vol./is. 26/1(92-96), 0179051X

Author(s): Walker, Richard W, Dunn, Janet R, Gray, William K

Language: English

Abstract: Many people with Parkinson's disease (PD) experience dysphagia; however, the prevalence of dysphagia in people with PD is unknown. We studied a prevalent population of PD cases. All of those who consented to participate were assessed for anxiety, depression, cognitive function, and quality of life using standard rating scales. Anyone who answered "yes" to either one of the two questions: Do you have difficulty swallowing food/liquid or tablets? and Do you cough after eating/drinking? was considered to have dysphagia. Question 7 of the Unified Parkinson's Disease Rating Scale (UPDRS) was also used to identify dysphagia. Of 106 prevalent PD cases, 75 (38 males) patients consented to examination and assessment. The prevalence of dysphagia was 32.0% (n = 24; 11 males). Using the response to UPDRS Question 7 as an indicator of the impact of swallowing problems on the patient, there were significant correlations with cognitive function, anxiety, depression, quality of life, and UPDRS-reported gait disturbance, postural instability and problems with falling. There was no correlation with disease duration, age, or gender. Almost one third of the participants reported dysphagia. There was a strong correlation between dysphagia and gross motor skills; patients reporting such problems should be screened for swallowing problems.

Publication Type: journal article

Source: CINAHL

Title: Using evidence-based practice to improve the recognition of anxiety in parkinson's disease.

Citation: Journal for Nurse Practitioners, 01 February 2011, vol./is. 7/2(136-141), 15554155

Author(s): Snyder, Charlene Hoffman, Facchiano, Lynda, Brewer, Melanie

Language: English

Abstract: Abstract: Parkinson''s disease (PD) is associated with motor disabilities, yet approximately 40% of patients suffer from nonmotor symptoms of anxiety. Failure to manage anxiety symptoms results in diminished quality of life. This situation raises the clinical question: what is the best method for assessing anxiety in patients with PD? Stetler''s evidence-based practice model can be used by nurse practitioners to guide the knowledge search process to answer this clinical question. The evidence-based process search revealed that using a commonly available anxiety screening tool, like the Hamilton Anxiety Rating Scale, could improve recognition of anxiety even in a specialty population like PD.

Publication Type: journal article

Source: CINAHL

Title: Living with advanced parkinson's disease: a constant struggle with unpredictability.

Citation: Journal of Advanced Nursing, 01 February 2011, vol./is. 67/2(408-417), 03092402

Author(s): Haahr A, Kirkevold M, Hall EOC, Ã˜stergaard K

Language: English

Abstract: Aim. This paper is a report of an exploration of patients' lifeworld and way of managing life with advanced Parkinson's disease prior to Deep Brain Stimulation and what they expect from life following this treatment. Background. Parkinson's disease is a progressive neurodegenerative disease, which is initially well-treated with L-dopa. Living with Parkinson's disease means living with the experience of continuous loss of independence and self-esteem and unpredictable ON/OFF phenomena. Thus, in the advanced stage of the disease, treatment with Deep Brain Stimulation may become relevant. Method. Eleven patients eligible for Deep Brain Stimulation were interviewed prior to treatment. Data were collected in 2007 and analysed according to the hermeneutic phenomenological methodology of van Manen, using the four existentials as analytic tools. Findings. Living with advanced Parkinson's disease can be described as the experience of living with and managing unpredictability. The disease gradually took over, and participants had to struggle with unpredictability on a daily basis. Themes in relation to this were: The body -- setting the agenda, Always a struggle to be on time, Living in dependence and compromise -- being a burden, and Living with restrained space and changes in social life. Conclusion. Parkinson's disease leads to profound bodily restrictions. Living with an unpredictable body affects all aspects of life, and nurses need to be aware of the impact the disease has on the entire lifeworld, and how this may affect the way treatment is perceived.

Publication Type: journal article

Source: CINAHL

Full Text:
Available in *fulltext* at Wiley

Recent References from Medline (the premier healthcare worldwide database)

Title: Clinical problems in the hospitalized Parkinson's disease patient: systematic review.

Citation: Movement Disorders, February 2011, vol./is. 26/2(197-208), 0885-3185;1531-8257 (2011 Feb 1)

Author(s): Gerlach OH, Winogrodzka A, Weber WE

Language: English

Abstract: The problems Parkinson's disease (PD) patients encounter when admitted to a hospital, are known to be numerous and serious. These problems have been inventoried through a systematic review of literature on reasons for emergency and hospital admissions in PD patients, problems encountered during hospitalization, and possible solutions for the encountered problems using the Pubmed database. PD patients are hospitalized in frequencies ranging from 7 to 28% per year. PD/parkinsonism patients are approximately one and a half times more frequently and generally 2 to 14 days longer hospitalized than non-PD patients. Acute events occurring during hospitalization were mainly urinary infection, confusion, and pressure ulcers. Medication errors were also frequent adverse events. During and after surgery PD patients had an increased incidence of infections, confusion, falls, and decubitus, and 31% of patients was dissatisfied in the way their PD was managed. There are only two studies on medication continuation during surgery and one analyzing the effect of an early postoperative neurologic consultation, and numerous case reports, and opinionated views and reviews including other substitutes for dopaminergic medication intraoperatively. In conclusion, most studies were retrospective on small numbers of patients. The major clinical problems are injuries, infections, poor control of PD, and complications

of PD treatment. There are many (un-researched) proposals for improvement. A substantial number of PD patients' admissions might be prevented. There should be guidelines concerning the hospitalized PD patients, with accent on early neurological consultation and team work between different specialities, and incorporating nonoral dopaminergic replacement therapy when necessary. Copyright Copyright 2011 Movement Disorder Society.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Drosophila models of Parkinson's disease.

Citation: Advances in Genetics, 2011, vol./is. 73/(1-50), 0065-2660;0065-2660 (2011)

Author(s): Whitworth AJ

Language: English

Abstract: Parkinson's disease (PD) is the second most prevalent neurodegenerative disorder principally affecting the dopaminergic neurons of the substantia nigra. The pathogenic mechanisms are unknown and there are currently no cure or disease-modifying therapies. Recent genetic linkage studies have begun to identify single-gene mutations responsible for rare heritable forms of PD and define genetic risk factors contributing to disease prevalence in sporadic cases. These findings provide an opportunity to gain insight into the molecular mechanisms of this disorder through the creation and analysis of appropriate genetic models. One model system that has proven surprisingly tractable for these studies is the fruit fly, Drosophila melanogaster. Analysis of a number of Drosophila models of PD has revealed some profound and sometimes surprising insights into PD pathogenesis. Moreover, these models can be used to investigate potential therapeutic strategies that may be effective in vivo, and tests have highlighted the efficacy of a number of neuroprotective compounds. Here, I review the methodologies employed in developing the various Drosophila models, and the recent advances that these models in particular have contributed to our understanding of the mechanisms that underlie PD pathogenesis and possible treatment strategies. Copyright Copyright 2011 Elsevier Inc. All rights reserved.

Publication Type: Journal Article, Research Support, Non-U.S. Gov't, Review

Source: MEDLINE

Title: New non-oral drug delivery systems for Parkinson's disease treatment.

Citation: Expert Opinion on Drug Delivery, March 2011, vol./is. 8/3(359-74), 1742-5247;1744-7593 (2011 Mar)

Author(s): Md S, Haque S, Sahni JK, Baboota S, Ali J

Language: English

Abstract: INTRODUCTION: Parkinson's disease (PD) remains the only neurodegenerative disorder for which there are highly effective symptomatic therapies, but still unmet needs regarding its long-term management. Levodopa (LD) remains the most effective treatment; however, chronic use is associated with potentially disabling motor complications. AREAS COVERED: This review highlights a variety of new non-oral drug delivery strategies for non-invasive and invasive routes of

drug administration for the treatment of PD. It also includes current and future trends of liposomes, solid lipid nanoparticles and biocompatible microparticles as new non-oral drug delivery systems. EXPERT OPINION: The long-term complications and limitations of LD treatment might be improved by changing therapy from the present pulsatile stimulation to a more constant stimulation of central dopamine receptors. Stimulation of these receptors may be possible with a new non-oral drug delivery system, with the aim of achieving long-lasting and less fluctuating drug levels, minimization of peak levels and thereby reduction of side effects.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Gene therapy: a viable therapeutic strategy for Parkinson's disease?.

Citation: Journal of Neurology, February 2011, vol./is. 258/2(179-88), 0340-5354;1432-1459 (2011 Feb)

Author(s): Berry AL, Foltynie T

Language: English

Abstract: Gene therapy represents a potentially useful additional technique to ameliorate the motor symptoms of Parkinson's disease (PD), and the motor complications of its treatment. The neurodegenerative process itself, as well as the non-motor symptoms of PD, both remain less amenable to most of the current gene therapy approaches. This review presents an overview of the four gene therapies in phase I/II clinical trials, outlines some of the challenges they face, and proposes additional alternative strategies that might improve the clinical prospects of gene therapy for PD. In so doing, we hope to highlight the issue of the current absence of effective treatment for non-motor symptoms of PD and the potential of further candidate targets for gene therapy intervention that might improve upon this, for both specific individuals with genetic forms of PD as well as "sporadic" PD patients.

Publication Type: Journal Article, Research Support, Non-U.S. Gov't, Review

Source: MEDLINE

Title: Management of the hospitalized patient with Parkinson's disease: current state of the field and need for guidelines.

Citation: Parkinsonism & Related Disorders, March 2011, vol./is. 17/3(139-45), 1353-8020;1873-5126 (2011 Mar)

Author(s): Aminoff MJ, Christine CW, Friedman JH, Chou KL, Lyons KE, Pahwa R, Bloem BR, Parashos SA, Price CC, Malaty IA, Iansek R, Bodis-Wollner I, Suchowersky O, Oertel WH, Zamudio J, Oberdorf J, Schmidt P, Okun MS, National Parkinson Foundation Working Group on Hospitalization in Parkinson's Disease

Language: English

Abstract: OBJECTIVE: To review the literature and to identify practice gaps in the management of the hospitalized Parkinson's disease (PD) patient.BACKGROUND: Patients with PD are admitted to hospitals at higher rates, and frequently have longer hospital stays than the general population.

Little is known about outpatient interventions that might reduce the need for hospitalization and also reduce hospital-related complications.METHODS: A literature review was performed on PubMed about hospitalization and PD between 1970 and 2010. In addition, in press peer-reviewed papers or published abstracts known to the authors were included. Information was reviewed by a National Parkinson Foundation workgroup and a narrative review article was generated.RESULTS: Motor disturbances in PD are believed to be a causal factor in the higher rates of admissions and complications. However, other conditions are commonly recorded as the primary reason for hospitalization including motor complications, reduced mobility, lack of compliance, inappropriate use of neuroleptics, falls, fractures, pneumonia, and other important medical problems. There are many relevant issues related to hospitalization in PD. Medications, dosages and specific dosage schedules are critical. Staff training regarding medications and medication management may help to avoid complications, particularly those related to reduced mobility, and aspiration pneumonia. Treatment of infections and a return to early mobility is also critical to management.CONCLUSIONS: Educational programs, recommendations, and guidelines are needed to better train interdisciplinary teams in the management of the PD patient. These initiatives have the potential for both cost savings and improved outcomes from a preventative and a hospital management standpoint.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: The role of dopamine agonists in the treatment of depression in patients with Parkinson's disease: a systematic review.

Citation: Drugs, February 2011, vol./is. 71/3(273-86), 0012-6667;0012-6667 (2011 Feb 12)

Author(s): Leentjens AF

Language: English

Abstract: Depressive disorders as well as depressive symptoms are common in Parkinson's disease (PD) and an important factor affecting quality of life. Treatment of depressive symptoms not only improves mood but is also associated with improvement of motor symptoms, disability and cognitive symptoms. Currently, dopamine agonists are being suggested as an alternative to antidepressants for the treatment of depression in PD. The aim of this article is to systematically review the efficacy of dopamine agonists in the treatment of depression in PD. Since 1983, 19 studies have reported on the effects of dopamine agonists on depressive disorder, depressive symptoms or mood in PD. To date, no double-blind, placebo-controlled, randomized controlled trial of the treatment of major depressive disorder in PD with a dopamine agonist has been conducted. Studies of the effects of treatment with dopamine agonists on depressive symptoms in PD, or on mood in non-depressed PD patients, have yielded inconclusive results. Most studies are not designed to test effects on mood and are limited by methodological flaws. It can be concluded that, although the preliminary evidence of the effects on mood and depression in PD is interesting and in need of further study, there is as yet insufficient evidence to recommend dopamine agonists in the treatment of either depressive disorder or depressive symptoms in patients with PD. Treatment of depressive disorder and clinically relevant depressive symptoms should be based on pharmacological or non-pharmacological interventions with known efficacy in this population, such as citalopram, nortriptyline, desipramine or cognitive behavioural therapy. This strategy has the additional advantage of enabling the clinician to treat depressive symptoms independently of motor symptoms, thus avoiding potential complications of dopaminergic therapy.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Excessive daytime sleepiness in patients with Parkinson's disease.

Citation: CNS Drugs, March 2011, vol./is. 25/3(203-12), 1172-7047;1172-7047 (2011 Mar 1)

Author(s): Knie B, Mitra MT, Logishetty K, Chaudhuri KR

Language: English

Abstract: Excessive daytime sleepiness (EDS) is described as inappropriate and undesirable sleepiness during waking hours and is a common non-motor symptom in Parkinson's disease, affecting up to 50% of patients. EDS has a large impact on the quality of life of Parkinson's disease patients as well as of their caregivers, in some cases even more than the motor symptoms of the disease. Drug-induced EDS is a particular problem as many dopamine agonists used for the treatment of Parkinson's disease have EDS as an adverse effect. Dopaminergic treatment may also render a subset of Parkinson's disease patients at risk for sudden-onset sleep attacks that occur without warning and can be particularly hazardous if the patient is driving. This demonstrates the need for early recognition and management not only to increase health-related quality of life but also to ensure patient safety. There are many assessment tools for EDS, including the Epworth Sleepiness Scale (ESS) and the Multiple Sleep Latency Test (MSLT), although only the Parkinson's Disease Sleep Scale (PDSS) and the SCales for Outcomes in PArkinson's Disease-Sleep (SCOPA-S) are specifically validated for Parkinson's disease. Polysomnography can be used when necessary. Management comprises non-pharmacological and pharmacological approaches. Non-pharmacological approaches can be the mainstay of treatment for mild to moderate EDS. Advice on good sleep hygiene is instrumental, as pharmacological approaches have yet to provide consistent and reliable results without significant adverse effects. The efficacy of pharmacological treatment of EDS in Parkinson's disease using wakefulness-promoting drugs such as modafinil remains controversial. Further areas of research are now also focusing on adenosine A(2A) receptor antagonists, sodium oxybate and caffeine to promote wakefulness. A definitive treatment for the highly prevalent drug-induced EDS has not yet been found.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: The association between Parkinson's disease and melanoma.

Citation: International Journal of Cancer, May 2011, vol./is. 128/10(2251-60), 0020-7136;1097-0215 (2011 May 15)

Author(s): Pan T, Li X, Jankovic J

Language: English

Abstract: Parkinson's disease (PD) is a neurodegenerative disorder characterized by a loss of melanin-positive, dopaminergic neurons in the substantia nigra. Although there is convincing epidemiologic evidence of a negative association between PD and most cancers, a notable exception to this is that melanoma, a malignant tumor of melanin-producing cells in skin, occurs with higher-than-expected frequency among subjects with PD and that melanoma patients are more likely to have PD. A clear biological explanation for this epidemiological observation is

lacking. Here, we present a comprehensive review of published literature exploring the association between PD and melanoma. On the basis of published findings, we conclude that (i) changes in pigmentation including melanin synthesis and/or melanin synthesis enzymes, such as tyrosinase and tyrosine hydroxylase, play important roles in altered vulnerability for both PD and melanoma; (ii) changes of PD-related genes such as Parkin, LRRK2 and alpha-synuclein may increase the risk of melanoma; (iii) changes in some low-penetrance genes such as cytochrome p450 debrisoquine hydroxylase locus, glutathione S-transferase M1 and vitamin D receptor could increase the risk for both PD and melanoma and (iv) impaired autophagy in both PD and melanoma could also explain the association between PD and melanoma. Future studies are required to address whether altered pigmentation, PD- or melanoma-related gene changes and/or changes in autophagy function induce oncogenesis or apoptosis. From a clinical point of view, early diagnosis of melanoma in PD patients is critical and can be enhanced by periodic dermatological surveillance, including skin biopsies. Copyright Copyright 2011 UICC.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Determinants of health-related quality of life in Parkinson's disease: a systematic review.

Citation: Parkinsonism & Related Disorders, January 2011, vol./is. 17/1(1-9), 1353-8020;1873-5126 (2011 Jan)

Author(s): Soh SE, Morris ME, McGinley JL

Language: English

Abstract: This systematic review critically evaluates the literature to identify the demographic and clinical factors that predict the health-related quality of life (HRQOL) of people with Parkinson's disease (PD). Understanding how these factors relate to HRQOL in people with PD may assist clinicians minimise the functional and social impact of the disease by optimising their assessment and clinical decision making processes. A tailored search strategy in six databases identified 29 full-text reports that fulfilled the pre-defined inclusion and exclusion criteria. The quality of included studies was assessed by two independent reviewers using a customized assessment form. A best-evidence synthesis was used to summarise the demographic and clinical factors that were examined in relation to HRQOL. Depression was the most frequently identified determinant of HRQOL in people with idiopathic PD. Disease severity and disease disability were also found to be predictive of poor HRQOL outcomes in many studies. The motor symptoms that contributed most often to overall life quality were gait impairments and complications arising from medication therapy. To minimise the impact of PD on HRQOL, it may be necessary to consider the extent to which demographic factors and motor and non-motor symptoms contribute to life quality. Copyright 2010. Published by Elsevier Ltd. All rights reserved.

Publication Type: Journal Article, Meta-Analysis, Review

Source: MEDLINE

Title: Gastrointestinal dysfunction in Parkinson's disease.

Citation: Parkinsonism & Related Disorders, January 2011, vol./is. 17/1(10-5), 1353-8020;1873-5126 (2011 Jan)

Author(s): Pfeiffer RF

Language: English

Abstract: In recent years, an increasingly detailed picture of gastrointestinal dysfunction in the setting of Parkinson's disease has emerged. Abnormalities of function may occur at virtually all levels of the gastrointestinal tract. Weight loss, dental deterioration, salivary excess, dysphagia, gastroparesis, decreased bowel movement frequency, and anorectal dysfunction all may occur. The pathophysiologic basis for this dysfunction entails both central and enteric nervous system involvement.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Parkinson's disease dementia and potential therapeutic strategies.

Citation: CNS Neuroscience & Therapeutics, February 2011, vol./is. 17/1(32-44), 1755-5930;1755-5949 (2011 Feb)

Author(s): Caviness JN, Lue L, Adler CH, Walker DG

Language: English

Abstract: Dementia in Parkinson's disease (PD-D) has only been acknowledged in the recent three decades, but research in this field has accelerated. The purpose of this review was to discuss advances in PD-D regarding biomarker correlates and potential therapeutic targets. Attention and executive dysfunction, memory deficits that improve with cueing, and visual hallucinations are characteristic in PD-D. PD-D dramatically increases the disability and misery of the disease. Current treatment for PD-D is symptomatic, modest, and only transiently effective. There is wide agreement that more effective treatment is needed, but this will require more knowledge about PD-D pathophysiology. Advances in the pathogenesis of PD have focused on the substantia nigra, which is the location from where the pathophysiology of motor symptoms primarily arises in initial stages. In contradistinction, pathology studies have suggested that cognitive decline correlates with cortical and subcortical-cortical projection pathway abnormalities. There is evidence that substantia nigra mechanisms, including protein aggregation of alpha-synuclein (e.g., Lewy bodies) may also play a role in cortical neuron degeneration. Other different mechanisms, such as Alzheimer's disease pathology (e.g., Abeta aggregation) may be operant for PD-D. Biomarkers of various types are being proposed for the study of PD-D as well as for objective measures of PD-D prediction and progression. Therapeutic targets are currently derived mostly from general PD neurodegeneration research rather than cortical PD neurodegeneration per se. Protein aggregation, genes that are associated with PD, oxidative stress, inflammation, and trophic factors constitute the major classes of therapeutic targets for PD-D. More research is needed on the specific aspects of cortical dysfunction and degeneration that create PD-D.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Treatment of depressive symptoms in Parkinson's disease.

Citation: European Journal of Neurology, March 2011, vol./is. 18 Suppl 1/(11-5), 1351-5101;1468-1331 (2011 Mar)

Author(s): Barone P

Language: English

Abstract: Significant depressive disorders are present in approximately 30-40% of patients with Parkinson's disease (PD). Depressive symptoms are correlated with poor health-related quality-of-life (HRQoL) scores, and are the major determinant of HRQoL. Studies that have evaluated pharmacotherapy for depressive symptoms in PD have shown that there is substantial variability in outcomes. Recently, two double-blind, placebo-controlled studies showed the superiority of nortriptyline and desipramine versus placebo and selective serotonin reuptake inhibitors. The antidepressant effects of dopamine agonists have been explored mainly in open and non-controlled studies. In a 14-week randomized trial comparing pramipexole with sertraline in depressed patients without motor complications, the Hamilton Depression Rating Scale score decreased in both groups; however, in the pramipexole group, the proportion of patients who recovered was significantly higher. Recently, in the first 12-week double-blind placebo-controlled clinical trial in PD patients without motor fluctuations on stable levodopa treatment, pramipexole reduced depressive symptoms as measured by Beck Depression Inventory score, with a significant difference in efficacy in favour of pramipexole. These data suggest that pramipexole might represent an alternative to antidepressant drugs to treat depressive symptoms in PD without adding the risk of antidepressant adverse events, and avoid polypharmacy. Copyright 2011 The Author(s). European Journal of Neurology Copyright 2011 EFNS.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Exercise alleviates Parkinsonism: clinical and laboratory evidence.

Citation: Acta Neurologica Scandinavica, February 2011, vol./is. 123/2(73-84), 0001-6314;1600-0404 (2011 Feb)

Author(s): Archer T, Fredriksson A, Johansson B

Language: English

Abstract: The present review examines the putative benefits for individuals afflicted with Parkinsonism, whether in the clinical setting or in the animal laboratory, accruing from different exercise regimes. The tendency for patients with Parkinson's disease (PD) to express either normal or reduced exercise capacity appears regulated by factors such as fatigue, quality-of-life and disorder severity. The associations between physical exercise and risk for PD, the effects of exercise on idiopathic Parkinsonism and quality-of-life, the effects of exercise on animal laboratory models of Parkinsonism and dopamine (DA) loss following neurotoxic insults, and the effects of exercise on the DA precursor, L-Dopa, efficacy are examined. It would appear to be case that in view of the particular responsiveness of the dopaminergic neurons to exercise, the principle of 'use it or lose' may be of special applicability among PD patients. Copyright 2010 John Wiley & Sons A/S.

Publication Type: Journal Article, Review

Source: MEDLINE

Title: Deep brain stimulation for Parkinson disease: an expert consensus and review of key issues.

Citation: Archives of Neurology, February 2011, vol./is. 68/2(165), 0003-9942;1538-3687 (2011 Feb)

Author(s): Bronstein JM, Tagliati M, Alterman RL, Lozano AM, Volkmann J, Stefani A, Horak FB, Okun MS, Foote KD, Krack P, Pahwa R, Henderson JM, Hariz MI, Bakay RA, Rezai A, Marks WJ Jr, Moro E, Vitek JL, Weaver FM, Gross RE, DeLong MR

Language: English

Abstract: OBJECTIVE: To provide recommendations to patients, physicians, and other health care providers on several issues involving deep brain stimulation (DBS) for Parkinson disease (PD).DATA SOURCES AND STUDY SELECTION: An international consortium of experts organized, reviewed the literature, and attended the workshop. Topics were introduced at the workshop, followed by group discussion.DATA EXTRACTION AND SYNTHESIS: A draft of a consensus statement was presented and further edited after plenary debate. The final statements were agreed on by all members.CONCLUSIONS: (1) Patients with PD without significant active cognitive or psychiatric problems who have medically intractable motor fluctuations, intractable tremor, or intolerance of medication adverse effects are good candidates for DBS. (2) Deep brain stimulation surgery is best performed by an experienced neurosurgeon with expertise in stereotactic neurosurgery who is working as part of a interprofessional team. (3) Surgical complication rates are extremely variable, with infection being the most commonly reported complication of DBS. (4) Deep brain stimulation programming is best accomplished by a highly trained clinician and can take 3 to 6 months to obtain optimal results. (5) Deep brain stimulation improves levodopa-responsive symptoms, dyskinesia, and tremor; benefits seem to be long-lasting in many motor domains. (6) Subthalamic nuclei DBS may be complicated by increased depression, apathy, impulsivity, worsened verbal fluency, and executive dysfunction in a subset of patients. (7) Both globus pallidus pars interna and subthalamic nuclei DBS have been shown to be effective in addressing the motor symptoms of PD. (8) Ablative therapy is still an effective alternative and should be considered in a select group of appropriate patients.

Publication Type: Consensus Development Conference, Journal Article, Research Support, N.I.H., Extramural, Research Support, Non-U.S. Gov't, Review

Source: MEDLINE

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