

Conclusions: We detected clustering of HD among distinct selective Jewish ethnic groups in Israel, with higher prevalence of the disease among Jews from the Caucasus region and Karaites, compared to the general Israeli population.

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Tremor-dominant clinical phenotype is associated with low risk of levodopa-induced dyskinesia in Parkinson's Disease

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Objective: To evaluate possible associations between epidemiological and clinical data with risk of levodopa-induced dyskinesias (LID) onset in Parkinson's disease (PD) patients.

Background: LID are common complications in PD, but there are conflicting data about clinical risk factors associated with their onset.

Methods: A cross-sectional study was conducted with epidemiological and clinical data from Brazilian PD patients to identify clinical risk factors associated with LID onset. PD patients with levodopa therapy were submitted to neurological examination and semi-structured interviews performed by movement disorders specialists. Presence of LID was confirmed if UPDRS Part IV had a score = 1 on item 32. Clinical phenotypes were defined based on the method described by Stebbins et al. (2013) as tremor dominant or postural instability/gait difficulty (PIGD). We performed multivariate logistic regression to identify clinical risk factors associated with LID onset.

Results: 198 Brazilian PD patients were enrolled (males - 59%; mean age 61.8 years). Of these patients, 96 (48.2%) presented LID. At a forward multivariate model with 7 independent variables ($p < 0.1$ in univariate analysis), tremor dominant phenotype showed a reduced risk of LID onset compared to PIGD patients (OR 0.17, CI95% 0.07-0.39; $p < 0.001$). Furthermore, longer duration (OR 1.31, CI95% 1.17-1.47; $p < 0.001$) and higher doses of levodopa therapy (OR 1.00, CI95% 1.000-1.002; $p = 0.04$), as also as early onset of PD (OR 1.04, CI95% 1.01-1.07; $p = 0.009$) increased risk of LID.

Conclusions: Together with previous studies, our results showed PD patients with tremor dominant clinical phenotype have a lower risk of LID onset, suggesting this phenotype present a more benign prognosis and a specific physiopathology.

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Occupational trichloroethylene exposure and Parkinson's disease risk

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Objective: To assess whether occupational exposure to the solvent trichloroethylene (TCE) is associated with increased risk of Parkinson's disease (PD).

Background: Severe solvent intoxication can rarely cause an acute parkinsonian syndrome, but epidemiologic studies of solvent exposure and PD risk are inconsistent. A PD cluster was previously identified in manufacturing workers exposed to the common degreasing solvent TCE, and TCE induces specific PD-like neuropathology in an animal model [1]. Our group reported increased risk associated with occupational exposure to TCE in a study of twins discordant for PD [2]. We sought to replicate this finding in a second population.

Methods: We recruited PD cases and matched controls from North American movement disorders centers (SOLVENTS study). Occupational interviews collected information about industry/tasks/processes/materials for jobs since age 10. A blinded industrial hygienist and preventive medicine physician estimated TCE exposure likelihood (none, possible, probable), intensity (low, >low) and duration (hours/year*years), and estimated cumulative exposure. We pooled SOLVENTS with a prior case-control study in a large male twin cohort (TWINS study) that used identical exposure rating procedures. We assessed risk using generalized estimating equations adjusting for age, smoking, study, and twin-relatedness.

Results: 492 PD/481 controls in SOLVENTS, and 155 PD/117 controls in TWINS had complete data. 22 in SOLVENTS (21 male) and 15 in TWINS had any occupational exposure to TCE. PD risk was higher for any TCE exposure in SOLVENTS (odds ratio (OR) 1.4, 95%CI 0.6-3.3), TWINS (OR 3.1, 95%CI 0.9-10.5) and in pooled analyses (OR 1.8, 95%CI 0.9-3.7). In cumulative tertile pooled analyses restricted to men,

relative to no exposure, OR for TCE exposure was 1.15 (0.5-2.6) for low ($n = 12$ in SOLVENTS, 9 in TWINS) and 3.6 (0.97-13.4) ($n = 9$ in SOLVENTS, 6 in TWINS) for high exposure (p -trend 0.05).

Conclusions: Although statistical power is limited and exposure assessment imprecise, our finding of a dose-response relationship supports observations in animal studies and suggests that occupational exposure to TCE may increase PD risk. Future work will investigate interactions with polymorphic variants in genes involved in TCE metabolism.

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Oral health-related quality of life and dental care among Parkinson's disease patients and caregivers of South India.

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Objective: The objective of the present study was to evaluate the oral health-related quality of life among patients and their caregivers with Parkinson's disease.

Background: Parkinson's disease can severely affect the oral health-related quality of life (OHR-QoL) of both patients and their carers. Oral and dental health in Parkinson's disease has not been given much importance. As this chronic, neurodegenerative disease progresses, OHR-QoL deteriorates.

Methods: A descriptive cross sectional study was conducted on 34 patients and 42 caregivers of Mangalore, Karnataka, India using convenience sampling. The participants answered an improved version of the Oral Health Impact Profile (OHIP-14) Information was also elicited on their socio-demographic characteristics and dental care particulars. Statistical analysis was done using SPSS software version 19 and results were compared using percentages, t test and chi square test.

Results: The OHIP-14 average score was 14.23 for Parkinson's disease patients and 3.56 for care givers. Dental anxiety and unhealthy dentition jointly explained 22.6% of the variance in OH-QoL. There were significant differences between the patients and caregivers for OHIP-14 (p value < 0.05).

Conclusions: In this study, patients with Parkinson's disease had a high OHIP-14 values suggesting a less OH-QoL. Dental awareness among patients and care givers and management of PD-related OH problems is needed.

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Demographic and Clinical Characters of Parkinson's Disease in Tertiary Hospital in Kuwait

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Objective: To estimate the prevalence of Idiopathic Parkinson's disease (PD) within patients attending a movement disorder clinic at tertiary hospital in Kuwait.

Background: PD is the second most common neurodegenerative disorder in the elderly especially beyond the age of sixty, and the most commonly seen movement disorder in neurology clinics. PD is expected to increase in prevalence with the increase in average life expectancy in Kuwait.

Methods: A hospital based descriptive cross-sectional study was carried out in 2015 at the movement disorder clinic of Ibn Sina Hospital, a tertiary hospital in Kuwait. All demographic and clinical data were registered. Diagnoses are coded according to the 8th revision of the international classification of diseases (ICD) in 1977-1993 and thereafter according to the 10th revision (ICD-10).

Results: A total of 646 attended movement disorder clinic, 529 (81.8%) of them met the diagnostic criteria of PD. Males were significantly prevalent in PD cohort (63.14 versus 36.9%; $P < 0.01$). PD is more frequent in patients above 60 years (67.3% versus 32.7%; $p < 0.001$). The mean age of PD onset was 63.24 ± 14.55 . No significant differences in the age of PD onset in men and women (63.40 ± 15.04 versus 63.03 ± 13.92 years; $p < 0.75$). Exposure to insecticide/Gas oil was in 22.7%, use of antipsychotic in 3%, and salbutamol in 4.5%. Family history of PD was found in 18.2%. The most common used drug in our cohort was L dopa (75.8%), followed with dopamine agonist (72.8%) and amantadine in 6.1%. Deep brain stimulation was done for 9.1% while 1.5% had thalamotomy.

Conclusions: PD is the commonest movement disorder among patients attending the movement disorder clinic in Kuwait. It is higher in males and in the age group older sixty



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