

BRS Abstract Submission

Risk of Parkinson's in idiopathic anosmia

Objective: To identify markers of increased risk of Parkinson's in a cohort of individuals with idiopathic anosmia

Background: Smell loss (anosmia) is a common finding in people with Parkinson's disease (PD), although it is also quite common in older age. Population studies assessing the prodromal phase of Parkinson's have therefore included individuals with smell loss. However, the differential diagnosis of anosmia is broad, and it's likely that only a subset are linked to neurodegeneration.

Methods: We assessed neurologically healthy patients aged 60-80y from two specialist ENT clinics (James Paget Hospital, Norfolk; RNTNE, London). All participants had a diagnosis of idiopathic anosmia after comprehensive investigation, including objective smell testing, nasendoscopy, and cross-sectional imaging. Participants completed online PREDICT-PD testing (www.predictpd.com) followed by an in-person assessment with standardised physical (MDS-UPDRS, timed up and go, handwriting), cognitive (Montreal Cognitive Assessment, verbal fluency) and autonomic (postural blood pressure, SCOPA-AUT) and other assessments.

Results: We recruited 24 participants (M:F 42:58%), mean age 71.1y (SD 3.8y). Participants had a mean of 14.4 years of education (SD 3.1). Adjusted MoCA scores had a median of 26.5/30 (IQR 24.75-28.0). There was a range of subtle motor impairment, median UPDRS III 4.5 (IQR 1.75-8.0, max 20) and median 3m up-&-go time 8.35s (IQR 7.8-9.3, max 13s). Although autonomic function, assessed by the SCOPA-AUT, appears in the normal range (mean 8.7, SD 6.7), there were several participants severely affected.

Conclusions: This is the first UK-based prospective study of individuals with idiopathic anosmia assessing prodromal Parkinsonian features. There is subtle cognitive and motor impairment, although autonomic function does not seem to be severely affected.

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