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Parkinson's disease and taste function: a prospective investigation at three, four and five years from the first evaluation

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It is well-known that Parkinson's disease is characterized by a variety of non-motor symptoms. A gustatory deficit is hypothesized to be one of them. Because the few previous works assessed taste in a case-control way, the aim of our study was to investigate taste function in Parkinson's disease patients in a longitudinal fashion, after three, four and five years from the first evaluation. A group of 26 patients was re-examined (16 men, 10 women; age range: 54-88 years; mean age: 70.9 ± 8.4 years). As previously, taste function was assessed by means of the Whole Mouth Test (WMT) and Taste Strips Test (TST). Olfaction was also evaluated with the Sniffin' Sticks Identification Test (SST). All patients were able to understand and complete the procedure. Both for smell (p=0.45, Mann-Whitney U-Test) and taste results (WMT: p=0.234, Mann-Whitney U-Test; TST: p=0.747, Mann-Whitney U-Test) even if there is a score decrease, no significative difference was found between first and second evaluation, so suggesting a quite steady condition of chemosensory impairment across time. This could be in support of the hypothesis reported by various studies that an important taste dysfunction can be linked to the advanced phases of the disease associated with cortical involvement. Considering the objective difficulty in finding Parkinson patients suitable for this kind of evaluation in time (e.g. comorbidities onset, cognitive impairment) future research designed on a multicentric recruitment is needed.

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Parkinson's disease; non-motor symptoms; taste function assessment.

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