



Social Cognition in Patients with Parkinson’s Disease

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Background and Aim

Patients with Parkinson’s disease (PD) often have masked faces that impair social communication. They also frequently experience emotional-processing impairments. Some research suggests that pain empathy deficits in PD. However, the preservation of social cognition in PD patients and its relationship with other cognitive domains remain unclear. We aimed to investigate these aspects using facial affect tasks of the Florida Affect Battery (FAB).

Results

Table 1. Characteristics of participants

	Cognitively preserved	Mild cognitive impairment	Dementia
N	4	10	2
Sex, M/F	2/2	6/4	1/1
Age (yr)	69.0±5.8	69.2±7.8	69.0±3.5
Education (yr)	8.8±3.3	10.5±5.4	7.0±7.1
PD duration	2.8±0.8	4.2±2.5	6.0±2.8
H&Y stage	2.3±0.4	2.5±0.2	2.8±0.4
Fazekas	1.3±0.5	1.1±0.7	1.5±0.7
K-MMSE	28.3±1.1	25.5±2.5	22.0±1.4
CDR	0.4±0.2	0.5	0.8±0.4
CDR-SOB	0.6±0.4	1.6±0.7	4.3±0.4
GDS	2.0	3.0	4.0

Table 2. Subtest scores in each cognitive subgroup

	Cognitively preserved	Mild cognitive impairment	Dementia
Facial identity	18.5±1.1	17.8±1.8	18.0±1.4
Facial affect discrimination	18.3±1.3	18.0±1.0	18.5±1.5
Facial affect naming	17.8±1.6	17.7±1.4	16.5±3.5
Facial affect selection	18.8±1.6	18.3±2.0	17.5±0.7
Facial affect matching	16.5±2.6	15.9±2.9	14.5±0.5

Methods

- Inclusion criteria
 - Patients with PD
 - Seoul Neuropsychological Screening Battery II (SNSB-II) in the past 1 year
- Florida Affect Battery
 - Facial identity discrimination
 - Facial affect discrimination
 - Facial affect naming
 - Facial affect selection
 - Facial affect matching
- Patients with PD generally showed impairments in facial affect tasks, with facial affect matching being the most affected.
- Those with PD dementia exhibited particularly severe deficits in facial affect naming, selection, and matching.
- Errors were more frequent in negative emotions, especially sadness (n=19) and anger (n=11), in facial affect naming. Similarly, in facial affect matching, sadness (n=24) and anger (n=20) were more impaired.

Conclusion

- Patients with PD show impairments in facial affect recognition even in normal or MCI stages.
- Although this study involved a small sample, it highlights the presence of social cognition deficits in PD.