



Ecologically-relevant Isolated Apathy as an early symptom of neurodegeneration



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Introduction

Isolated Apathy (IA) is a disorder of motivation characterized by a reduction in the cognitive and emotional concomitants of goal directed behavior (GDB), independent from mood disorders. IA can be observed in neurodegenerative disease, and its frequency increases from mild to advanced stages of these diseases. Despite this, to date the association between IA and the development of neurodegenerative conditions remains only partially characterized.

Methods

We studied a group of 15 adults (age 55-65, mean 62,5), referred to our attention by treating neurologists and psychiatrists, for elevated apathy not associated with a significant decrease in mood levels.

All subjects underwent a complete neurological examination and were assessed with the Apathy Evaluation Scale, Clinician administered version (AES-C), the Zung Self-Rating Depression Scale, a Visual Analog Scale of Quality of Life and a validated autobiographical questionnaire to screen for current or previous use of psychoactive drugs, mental or neurological disorders and familiar history of depressive disorders.

All subjects were also evaluated with the MMSE, Frontal Assessment Battery and verbal fluencies tests.

These apathetic, non-depressed, adults, free from neuropsychiatric or medical conditions, with normal cognitive status (mean education 12 y) were followed up for 2 years, with periodical cognitive evaluation.

Results

All subjects had pathological results at the AES-C (mean 52, SD 6.7) and a non-relevant Zung Self-Rating Depression Scale score (mean 25.4, SD 4.5). All subjects showed normal performances at the short cognitive battery used in the study.

After two-year follow up all apathetic patients remained stable, except three of them who developed clinical established Fronto-Temporal Dementia while Progressive Supranuclear Palsy was diagnosed in one other.

Interesting, those patients had the lowest baseline VAS QoL mean score (40.8, SD 6.5, versus 56.4, SD 3.4).

Conclusions

The aim of our study was to investigate the possible role of IA as an early symptom of incipient neurodegenerative disease. In our IA group 4 of 15 adults developed neurodegenerative diseases during a two-year follow up. All of them had the poorest perceived quality of life; on the other hand, apathetic subjects with higher perceived quality of life remained stable from the cognitive point of view.

Discussion

Isolated, ecologically relevant, apathy could be an early symptom of neurodegeneration. Detecting apathetic, non-depressed, people with complaints and difficulties in daily activities could be relevant to identify a population at risk to develop neurodegenerative diseases.

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