REM sleep behavior disorder: the impact of gender

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Introduction

A few studies investigated gender differences in rapid eye movement sleep behavior disorder (RBD).

RBD shows a strong male prevalence. The ratio between male and female is approximately 8:1. Moreover, an increased RBD age onset has been observed in female patients.

Previous studies found that male prevalence is preserved in RBD associated with Parkinson's disease (PD) and Alzheimer dementia (AD), but not in Multiple System Atrophy (MSA), but others reported a similar gender ratio in RBD associated with neurological disorders.

Materials and Methods

320 consecutive RBD patients have been included in our study (mean age: 67.51±7.66 yrs).

A comparison between male and female patients has been performed for demographic data, sleep and neuropsychological findings.

Results

•261 RBD patients (82%) were male and 59 (18%) were female.

•Idiopathic RBD was found in 77% (203/261) of the males and 61% (36/59) of the females. No significant gender difference for age onset was found.

•In the sub-sample of RBD associated with neurodegenerative diseases, 70% were males (70% PD, 6% MSA, 7% Dementia Lewy body (DLB) and 17% AD) and 30% were females (50% PD, 30% MSA, 15% DLB and 5% AD).

•Regarding PSG findings, an increased sleep latency ($p<0,05$) and REM latency ($p<0,0001$) was found in female patient in comparison to males. No other differences in PSG data were found.

•Concerning the neuropsychological findings, females obtained higher scores in phonemic fluency ($p<0.05$) than males, while males had higher scores in memory for prose ($p<0.05$).

Discussion:

in accordance with previous studies, in our RBD sample we found an increased male prevalence. This prevalence was less pronounced in the subsample of secondary RBD. Gender differences in PSG data were found only for sleep latency and REM latency. Regarding neuropsychological findings, gender difference results only in phonemic fluency and memory for prose.

Conclusion:

Follow-up studies on gender differences in RBD should be conducted.

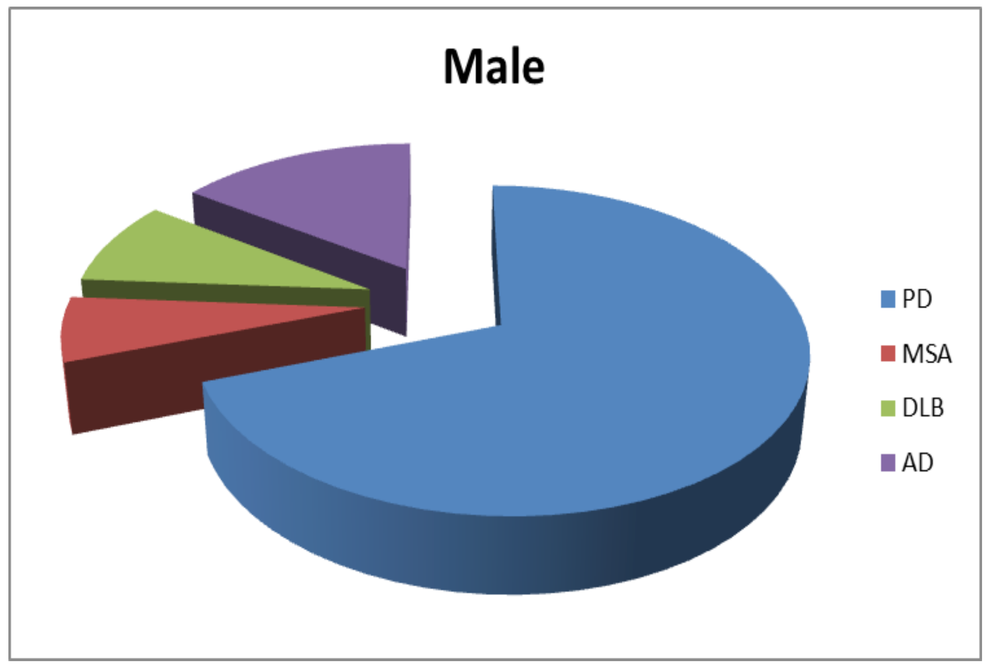

Figure 1: Distribution of neurodegenerative diseases respectively in male and female RBD patients sub-sample.

	Male	Female	
TST	333.46 ± 78.79	331.511 ± 98.74	n.s.
SL	22.52 ± 24.67	36.33 ± 49.35	$p < 0.05$
WASO	80.98 ± 61.78	63.19 ± 64.16	n.s.
%N1	11.72 ± 6.95	11.73 ± 14.29	n.s.
%N2	50.07 ± 12.49	51.50 ± 11.38	n.s.
%N3	18,75 ± 10.52	18.80 ± 9.26	n.s.
%REM	19.66 ± 8.87	19.34 ± 9.99	n.s.
REM Latency	107.25 ± 68.16	153.16 ± 73.50	$p < 0.001$
N° Awakenings	12.84 ± 7.38	10.81 ± 7.96	n.s.
SE%	75.08 ± 16.30	74.25 ± 20.30	n.s.
Phonemic Fluency	28.91 ± 10.46	34.19 ± 10.57	$p < 0.05$
Memory for Prose	11.33 ± 3.44	10.35 ± 2.88	$p < 0.05$

Table 1: Differences in PSG data and neuropyschological tests between male and female RBD patients.

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XLVII CONGRESSO NAZIONALE
22-25 OTTOBRE 2016 – VENEZIA

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