

Idiopathic and symptomatic Rem Sleep Behavior Disorder: clinical and polysomnographic profiles

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Introduction

Rapid eye movement sleep behavior disorder (RBD) can occur in the absence of any other associated neurologic disorder (iRBD) or in association with a neurodegenerative disease (sRBD).

In particular sRBD is frequently associated with Parkinson's disease (PD), Lewy body dementia (DLB) or multiple system atrophy (MSA), and in several cases may even antedate the occurrence of motor symptoms by decades. Aims of this study was to evaluate the clinical and polysomnographic differences between iRBD and sRBD.

Materials and Methods

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

A comparison between iRBD and sRBD patients has been performed by means of clinical and polysomnographic (PSG) assessment.

Results

• In iRBD group, 84% were males and 16% were females. In sRBD, 73% were males and 27% females.

• The age onset of RBD was 63.15 ± 8.69 years, with no difference between iRBD and sRBD.

• sRBD was present in 23.4% of the sample (12.4% PD, 2.9% MSA, 1.9% DLB, 1.9% Alzheimer Disease, 4.2% mixed dementia).

• 87.8% of RBD patients reported complex motor behavior, 75.3% reported aggressive dream content, 45% reported injuries: no significant difference was found between iRBD and sRBD.

• Concerning PSG data, only total sleep time was different in iRBD compared to sRBD (respectively, 340.28 ± 76.57 and 314.97 ± 90.76 min; $p < 0.05$). PLM index was similar in the two groups (29.15 ± 29.57 and 30.87 ± 34.60 ; n.s.)

Discussion: iRBD and sRBD did not differ for age onset, and gender. Clinical characteristics were similar in the two groups. Regarding PSG data the only significant difference was found for total sleep time.

Conclusion: No clinical and polysomnographic characteristic is able to distinguish between the two groups.

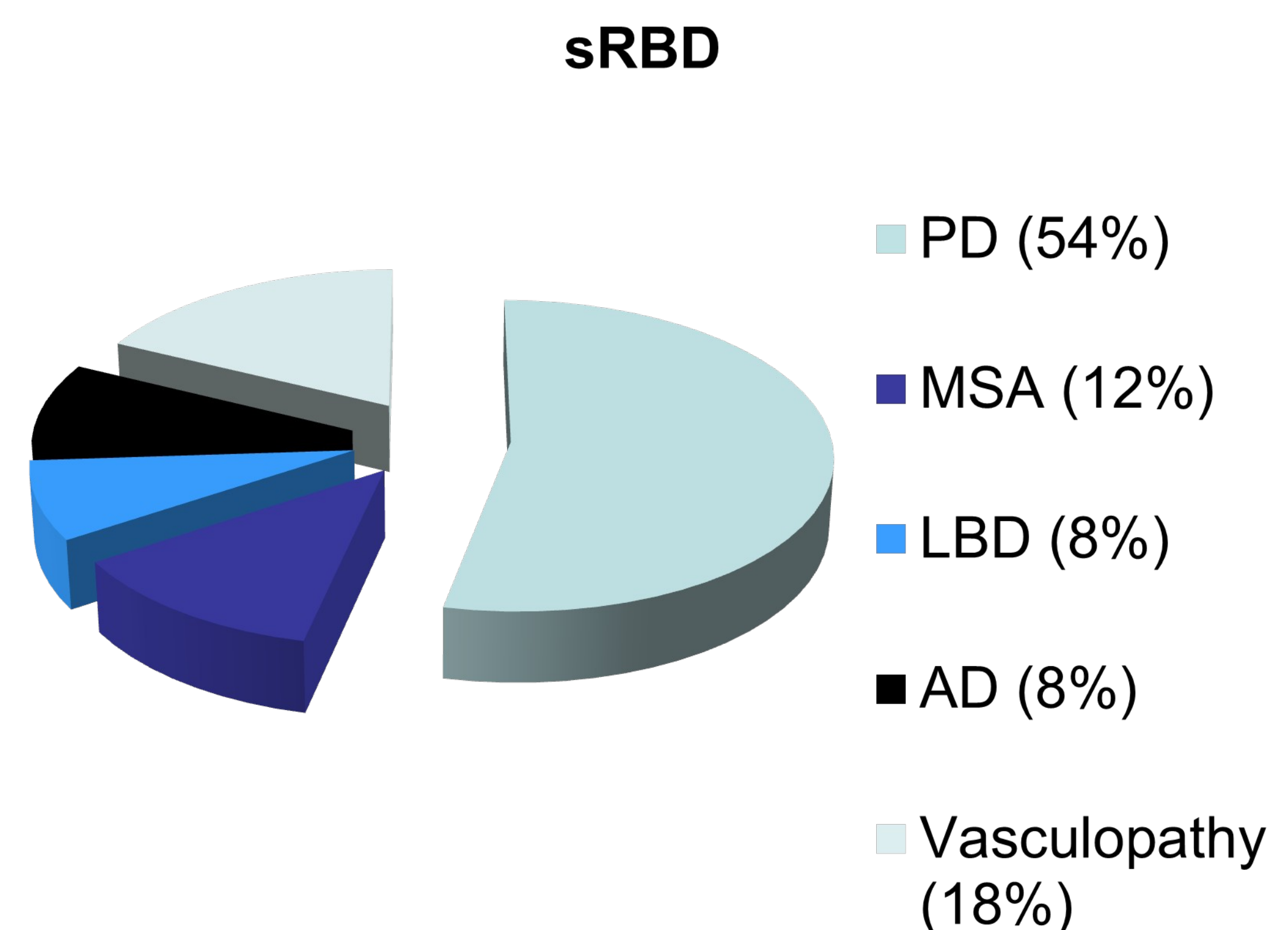


Figure 1: Graphical description of the distribution of neurodegenerative diseases in sRBD

	iRBD Mean \pm SD	sRBD Mean \pm SD	P
Total Sleep Time (min.)	340.27 \pm 76.57	314.97 \pm 90.76	<0.05
Sleep Latency (min.)	24.22 \pm 29.59	23.18 \pm 25.22	n.s.
Wake After Sleep Onset (min.)	76.30 \pm 61.30	83.03 \pm 65.66	n.s.
N1(%)	11.40 \pm 7.13	11.33 \pm 5.70	n.s.
N2 (%)	50.18 \pm 12.08	50.30 \pm 13.26	n.s.
N3 (%)	19.22 \pm 10.34	17.49 \pm 10.47	n.s.
REM (%)	19.24 \pm 8.44	21.14 \pm 10.89	n.s.
REM latency (min.)	112.81 \pm 73.23	121.76 \pm 65.37	n.s.
Number of awakenings	12.15 \pm 6.68	13.69 \pm 9.40	n.s.
Sleep Efficiency (%)	75.87 \pm 16.40	73.19 \pm 16.22	n.s.
Periodic Leg Movement Index	29.06 \pm 29.46	31.17 \pm 34.97	n.s.

Table 1: Differences in PSG data between idiopathic and symptomatic RBD patients.