scales. We comparatively analyzed VAS before and after treatment and adverse effects between treatments using non-parametric statistical tests.

Results: Sixty-eight of 109 patients responded (62.3%; 64 had analyzable data) with a mean age of 67.7 years. Fifty-seven (85%) were men, with mean RBD symptom duration of 13.9 years. Patients receiving each treatment were: melatonin=30, clonazepam=8, and combination=12; 14 received other or no treatment. Baseline VAS ratings were similar between groups. Only melatonin (p=0.003) and combination therapy (p=0.039) improved VAS ratings; clonazepam monotherapy did not improve VAS. Only melatonin monotherapy was reported to lower VAS compared to untreated patients (p=0.02). Optimally effective mean dosages were melatonin 9.95±5.06 mg and clonazepam 0.81±0.48 mg. Patient frequencies reporting one or more moderately-severe side effect(s) were similar between melatonin (15%), clonazepam (7%), and combination therapies (9%). Twenty-five (36.8%) patients had received only one medication trial, while 41.2% required more than one medication. Of these, 15 (22.1%) tried 2 and 13 (19.1%) tried 3 or more treatments.

Conclusion: Melatonin therapy at an approximate mean 10 mg dosage improved patient-reported DEB frequency/severity on VAS, compared between both previous intraindividual baseline ratings and with untreated patients, while clonazepam monotherapy did not, without differential adverse effects. Clonazepam monotherapy data were limited. These data inform future prospective melatonin symptomatic therapy trials for RBD. Additionally, 41.2% required more than one RBD pharmacological treatment, suggesting a current therapeutic gap and unmet need for future development of biologically-informed, evidence-based symptomatic RBD therapeutics.

Support (if any):

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REM SLEEP WITHOUT ATONIA IN IDIOPATHIC REM SLEEP BEHAVIOR DISORDER IN THE NORTH AMERICAN PRODROMAL SYNUCLEINOPATHY COHORT

John Feemster,[1] Paul Timm,[1] Luke Teigen,[1] Sarah Faber,[1] Tyler Steele,[1] Stuart McCarter,[1] Bradley Boeve,[2] Kristina Hedtkamp,[3] Yo-EL Ju,[4] Jennifer McCleland,[5] Ronald Postuma,[6] Amelie Pelletier,[7] Alon Avidan,[8] Donald Bliwise,[9] Erik St. Louis[1]

[1]Mayo Clinic Rochester, [2]Mayo Clinic - Rochester, Department of Neurology, [3]Washington University, [4]Washington University School of Medicine, [5]Washington University School of Medicine, Department of Neurology, [6]McGill University, Department of Neurology and Neurosurgery, [7]RI-MUHC, [8]University of California Los Angeles, David Geffen School of Medicine, Department of Neurology, [9]Emory University, Department of Neurology

Introduction: Idiopathic/isolated REM sleep behavior disorder (iRBD) is a prodromal alpha-synucleinopathy characterized by dream enactment behavior and REM sleep without atonia (RSWA). We sought to define quantitative RSWA diagnostic thresholds in the North American Prodromal Synucleinopathy (NAPS) Consortium cohort. We analyzed RSWA between iRBD patients across participating NAPS sleep centers, compared to normative controls, and hypothesized that previous diagnostic RSWA thresholds were overestimates.

Methods: All digital polysomnography files were converted to European Data Format and scored at a central laboratory (Mayo Clinic) which standardized display scoring montages, channel sensitivities, and filtering, and scripted computational analyses for visual scoring. RSWA was quantitatively analyzed in the submentalis (SM) and anterior tibialis (AT) muscles in iRBD (n=86) patients and controls (n=118) utilizing well validated visual (Mayo) and automated (RAI) methods. Parametric statistics were used to compare RSWA metrics, and RSWA thresholds were developed using receiver operating characteristic curves.

Results: RSWA was significantly higher for the RAI and all visual individual and combined muscle activity metrics in iRBD compared to controls (all p<0.001). Average SM phasic measures were: 14.2% (Mayo), 17.9% (McGill), 18.5% (UCLA), and 9.4% (Washington University). Average AT phasic measures at each site were: 26.7% (Mayo), 17.1% (McGill), 23.3% (UCLA), and 17.4% (Washington University). Average SM/AT 'any' measures at each site were: 45.4% (Mayo), 35.9% (McGill), 53.4% (UCLA), and 23.5% (Washington University). Overall cohort RBD diagnostic thresholds (AUC, specificity/sensitivity) were: SM phasic 4.9% (90.0, 82.2%/83.7%); AT phasic 7.6% (88.7%, 82.2%/81.4%) and combined SM/AT 'any' 13% (94.6, 83.9%/96.5%).

Conclusion: RSWA thresholds in the NAPS cohort were substantially lower than previously reported, suggesting previously overestimated diagnostic RSWA thresholds due to smaller, enriched patient samples and overfit statistical modeling. Confirmation of these findings in the complete NAPS cohort (n=300 iRBD patients across all 10 NAPS centers) is planned.

Support (if any):

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RESTLESS LEGS SYNDROME PREVALENCE AND SEVERITY AMONG PATIENTS TREATED WITH BUPRENORPHINE AND NALOXONE FOR OPIOID USE DISORDER

Benjamin Wipper,[1] Michelle Cooke,[2] John Winkelman[1]

[1]Massachusetts General Hospital, [2]Lemuel Shattuck Hospital

Introduction: Restless Legs Syndrome (RLS) is a sensory-motor neurological disorder which is associated with sleep disturbance and emotional distress. Opioid medications are effective treatments for RLS, and a high percentage of patients undergoing opioid withdrawal exhibit symptoms of RLS. Despite the known connection between RLS and opioids, there has been no assessment of RLS in patients actively treated with buprenorphine and naloxone for opioid use disorder (OUD).

Methods: We conducted a study to determine the prevalence of RLS among patients with OUD at an outpatient buprenorphine and naloxone clinic at Lemuel Shattuck Hospital in Jamaica Plain, Massachusetts. With the help of nurses, participants completed questionnaires which inquired about demographic information, previous opioid use, current medications, and RLS. Patients were categorized as having RLS if, according to the Cambridge-Hopkins Questionnaire, they answered positively to the four essential RLS criteria and if common mimics were not endorsed. A final determination of RLS status in those with ambiguous answers to RLS mimics was made by a trained sleep medicine physician (JWW).

Results: Participants (n=129) were primarily male (n=86; 66.7%), white (n=101; 78.3%), and the median age was 37.5 years. Approximately half of the sample (n=59; 45.7%) used medications for depression and/or anxiety. The median duration of buprenorphine and naloxone use was 3 years. 13.2% were judged to have RLS. RLS symptoms tended to be of moderate severity, disturb sleep to a moderate degree, and occur 5–15 days per month. There were no significant demographic or clinical differences in those with and without RLS. Of the 103 participants without suspected RLS, 15.5% (n=16) were taking a non-opioid medication known to treat RLS symptoms (e.g. gabapentin). Only 1/17 people (5.9%) with RLS were taking a treatment that would control such symptoms.