

Oxytocin benefits patients with obstructive sleep apnea

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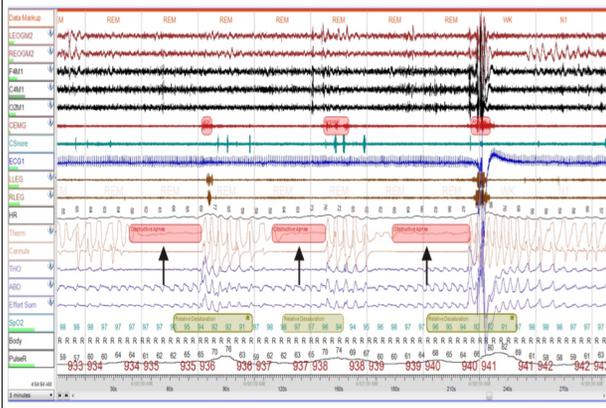
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Background

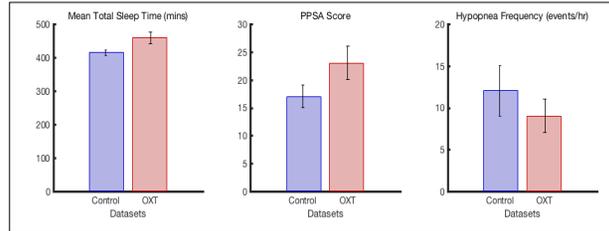
- Obstructive sleep apnea (OSA) is a highly prevalent cardiorespiratory disease that affects 25-30% of the adult population in the Western world.
- OSA is caused by repetitive collapses of the upper airway.
- The primary existing treatment for OSA is continuous positive airway pressure.

Methodology

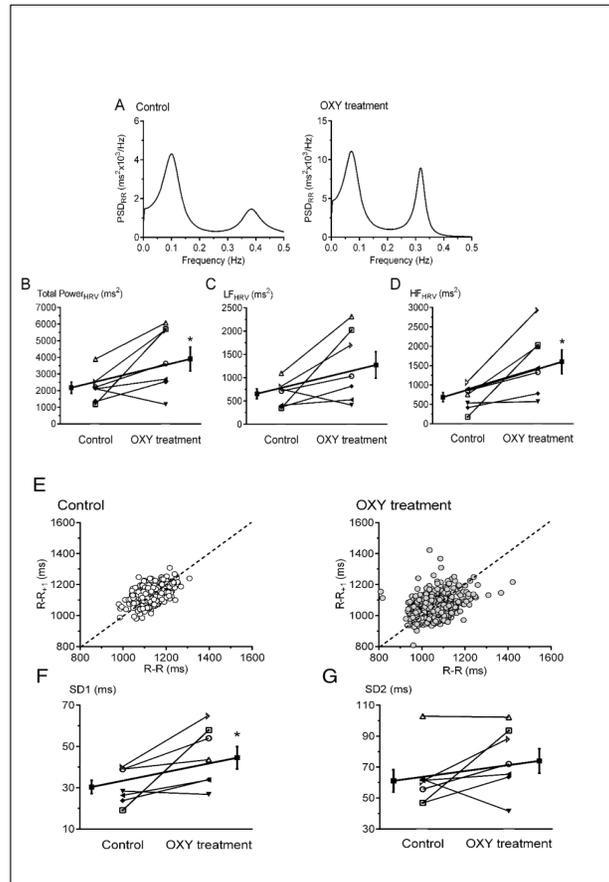
- This study compared 8 patients' standard polysomnogram (control) to their polysomnogram after intranasal administration of 40 i.u. oxytocin.
- Polysomnograms were manually scored by registered polysomnographic technologists, who identified sleep stages, hypopneic and apneic events and arousals.
- MATLAB was used to further analyze the data and identify correlations.
- Heart rate variability analysis was performed to determine the cardiac autonomic balance.



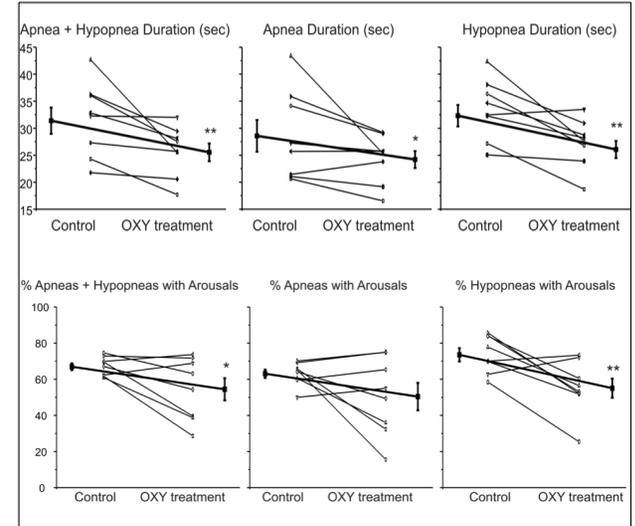
Direct Patient Impact



Heart Rate Variability



Apnea and Hypopnea Breakdown



Conclusions

- This study shows oxytocin can be a very beneficial treatment for patients with OSA.
- Additional research is needed to determine the mechanisms by which oxytocin promotes positive respiratory changes that reduce the frequency of arousals and level of stress.
- Future studies need to be expanded to include larger populations of patients and use more diverse study parameters (i.e., double blinded).

Acknowledgments

Joseph Marbach, Rodrigo Andre Del Rio Troncoso, Shawn Kimbro, Vivek Jain, Matthew Kay, David Mendelowitz "Oxytocin benefits patients with obstructive sleep apnea" Manuscript under preparation