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STRIKING ASSOCIATION BETWEEN HEADACHE, SLEEP DISORDERS AND CERVICAL RADICULOPATHY

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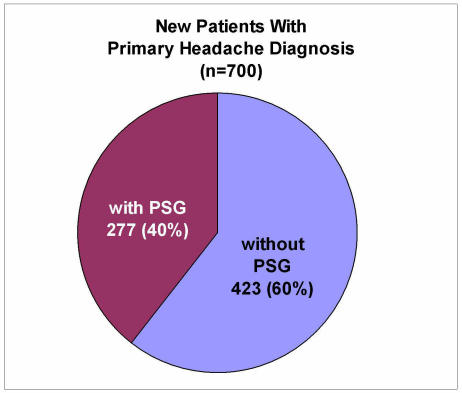
Objective: The objective of this study was to document a perceived association between headaches and sleep disorders in a neurologic clinic population. If such an association were found to exist, one possible cause for such an association might be a predominance of sleep in the lateral position. Another possible complication of sleep predominantly in the lateral position might logically be thought to be cervical radiculopathy, since this disorder has been shown to be prevalent in patients with sleep disorders[1].

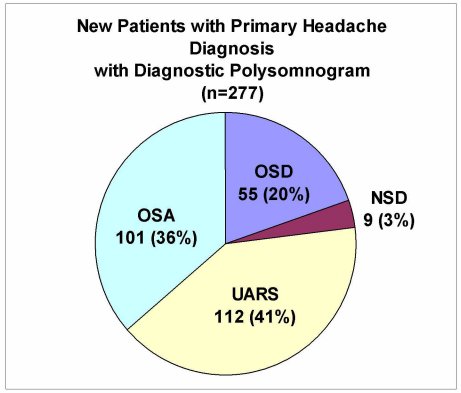
Background: Previous studies have suggested a relationship between headache and sleep disturbances, while other research hints at a relationship between cervical problems, such as radiculopathy, and the occurrence of headache.

Methods: In a retrospective review, the records of all new patients consecutively seen in a general neurology clinic with a primary diagnosis of headache over one year's time were reviewed. As a part of their evaluation, those patients were queried regarding their sleep, and, if appropriate, were studied with polysomnography in an accredited sleep disorders center. Patients with changes on the neurologic exam suggestive of cervical radiculopathy were examined with EMG-NCV testing.

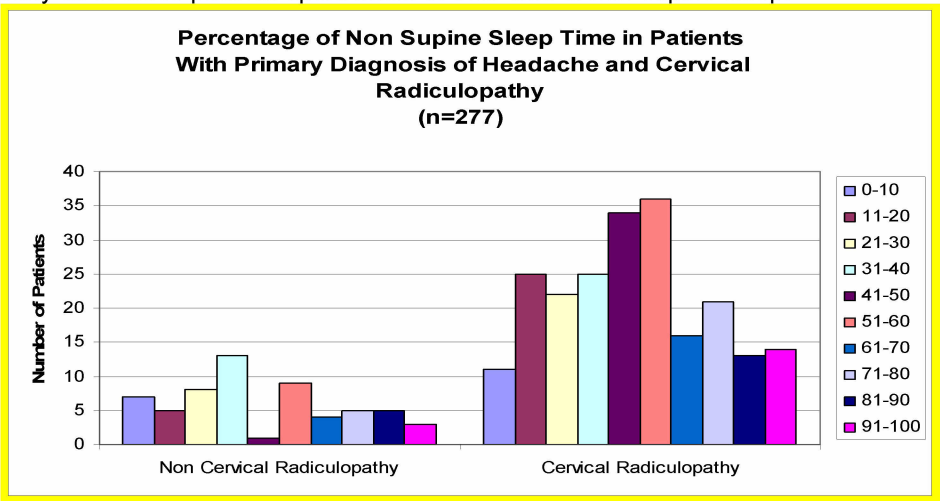
	Male	Female	Average Age	Average BMI
OSA & CR	27	50	47	33.7
OSA No CR	13	11	42	34.2
UARS & CR	15	77	36	27.0
UARS No CR	6	14	33	28.0
Other Sleep Disorders & CR	5	36	35	29.1
Other Sleep Disorders & No CR	5	9	38	32.0
No Sleep Disorders & CR	1	6	28.6	23.4
No Sleep Disorders & No CR	-	2	39	26.6

Results: Of the 700 patients who had a diagnosis of headache and headache subtypes, 491 (70.1%) also had formal sleep diagnoses (this is probably an underestimate since all symptoms of sleep disorders were not included). Of these patients with sleep diagnoses, 56% (277) completed polysomnography examinations. The most common disorders seen in this group were UARS and OSA.





Striking in this group was the presence of concomitant cervical radiculopathy (81.5 %.) Nearly all of these patients spent much of their time in non-supine sleep.



Conclusion: The high prevalence of sleep disorders in patients with headache was unanticipated. In addition, the striking prevalence of concomitant cervical radiculopathy in headache patients with sleep disorders was also unanticipated. These data suggest a possible link between headaches, cervical radiculopathy, and sleep position.

References:

1 Rowe, V.D., Hunter, J.A., Jackson, D.S., Din, A., Kahlon, H., Mecum, T., Varona, M., Guillaume, C.A., Engle, A.T., Wybar, L. Increased Prevalence of Cervical Radiculopathy in Sleep Disorders. **SLEEP, Abstract Suppl 2010, A284.**

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