

ACM and Sleep Disordered Breathing  
by: Dr. Watson at University Of Washington

Adults with Arnold-Chiari type I malformations are at greater risk for sleep-disordered breathing, compared with healthy controls, based on data presented at the annual meeting of the Associated Professional Sleep Societies.

In light of this finding, "We should be screening all Arnold-Chiari I patients for sleep-disordered breathing," said Dr. Nate Watson, a neurologist at the University of Washington, Seattle.

The displaced brain structures that characterize Arnold-Chiari I (AC-1), a benign developmental brain anomaly, can compress the brainstem, impeding breathing, he said. To better assess the risk of sleep-disordered breathing in AC-1 patients, Dr. Watson and his colleagues compared 18 women with AC-1 (mean age 36 years) with 35 age- and sex-matched controls.

The researchers used several subjective questionnaires including the Epworth Sleepiness Scale to assess sleep-disordered breathing and sleepiness. Based on these results, the AC-1 patients were at significantly greater risk for sleep-disordered breathing, compared with controls (69% vs. 20%). Specifically, the results from the questionnaires showed that three factors--snoring, sleepiness, and obesity/hypertension--were significantly more common among AC-1 patients vs. controls, and occurred in 44% vs. 6%, 78% vs. 46%, and 64% vs. 34%, respectively.

The AC-1 patients were significantly more likely to report other symptoms associated with sleep-disordered breathing, including nighttime choking or gasping and nighttime shortness of breath, compared with controls. And when they woke up, the AC-1 patients also reported sore throats, heartburn, and headaches significantly more often than did the control patients.

In addition, the AC-1 patients reported sleeping significantly fewer hours (6.3 hours versus 7.6 hours) and taking significantly longer to fall asleep (61.4 minutes versus 18.6 minutes), compared with controls.

Consider decompressive surgery for patients if respiration is their main complaint, but remember that they need to be followed, said Dr. Watson during the discussion after his presentation. Previous studies indicate that decompression surgery makes a difference. Data from 16 consecutive patients with AC-1 malformations showed a significant improvement in the central apnea index from 14.9 to 1.3 based on full-night polysomnography conducted approximately 200 days after decompression surgery