

The SleepStrip method as a screening tool for sleep apnea.

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Aim: Compare ambulatory home SleepStrip (SS) recordings to in-laboratory SleepStrip and full-night polysomnographic (PSG) recordings in patients with suspected snoring and/or obstructive sleep apnea (OSAS).

Subjects and methods: Sixteen subjects (median age 48 y, range 32-69 y). Eleven patients had OSAS with AHI > 10. After a home SleepStrip another recording was done in the laboratory combined with simultaneous PSG. The interpretations of the SleepStrip (Sscore) and PSG were done blinded.

Results: Thirteen (81.2%) of the 16 home-recordings were successful. In two cases the Sscore could not be read because of an oxygenation problem, and in one case the system was not activated. When only successful recordings were included the sensitivity was 87.5% and specificity 60%. The positive predictive value was 77.8% and the negative predictive value was 75%. When the unsuccessful recordings (N=3) were considered as negative for sleep apnea the sensitivity was 63.6% and specificity 60%. The positive predictive value was 77.8% and the negative predictive value was 42.9%. One of the 16 SleepStrip recordings during the PSG was not successful. When the result of this unsuccessful recording was considered as wrong result, the sensitivity was 81.8% and specificity 100%. The positive predictive value was 100% and the negative predictive value was 71.4%.

Conclusions: This study confirms earlier reports (Shochat et al. 2002) according to which SleepStrip is a valid screening tool. Good instructions are needed. The oxygenation problem should be eliminated without need to attach plastic pads.