

G-RC-4

INTERNIGHT VARIABILITY OF OVERNIGHT HOME OXIMETRY IN PATIENTS WITH MILD OBSTRUCTIVE SLEEP APNOEA (OSA)

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A variety of case selection techniques have been proposed for the diagnosis of OSA. We evaluated the reproducibility of overnight home oximetry in 10 patients with mild OSA (apnoea hypopnoea index 5-20/hour). Overnight home oximetry was performed for 5 consecutive nights and the 2% desaturation index (DI) determined. The 2% DI was defined as the number of 2% desaturations followed by a 1% desaturation per hour of recording. The mean DI was 6.38, and the mean coefficient of variation for 2,3,4, and 5 nights studies were 37, 36, 37 and 42 respectively. The variation of DI did not have a specific pattern according to whether it was the first or fifth study and did not correlate with the DI. If DI of 4, 5, 6 were set as the diagnostic cut off point, the sensitivity of the subsequent nights of study were as follows:

DI/hr.	Sensitivity				
	1-night	2-night	3-night	4-night	5-night
4	83.3	100	100	100	100
5	50	66.7	83.3	83.3	100
6	50	66.7	83.3	83.3	100

We conclude that overnight home oximetry has significant internight variability. Ideally at least 2 nights of study should be performed for case selection of patients with suspected mild OSA.

G-RC-5

Mallampati score is a good and independent predictive factor for obstructive sleep apnoea (OSA)

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Purpose: Difficult trachea intubation has been reported to have significant correlation with OSA. We perform this prospective study to assess the relationship between Mallampati score (MS), a measure used to assess the difficulty of trachea intubation, and OSA. We also assess whether MS is an independent predictive factor for OSA. **Methods:** Consecutive patients referred to the Sleep Clinic, QMH and UBC were recruited into the study. All patients were evaluated clinically (age, gender, neck circumference, body mass index, MS, thyromental distance) and polysomnographically. MS of 3&4 were considered indicative of narrowed upper airway. Patients were considered to have OSA when apnoea/hypopnea index ≥ 5 /hr. The association between MS and OSA was calculated with Fisher exact test. The correlation of MS and BMI was examined with Spearman. **Result:** 51 patients were recruited (11 female), the mean age, neck circumference, thyromental distance, and BMI was 47.55 ± 11.11 years, 40.34 ± 4.23 cm, 5.06 ± 1.09 cm and 30.19 ± 6.92 Kg/m² respectively. 47 of the patients had OSA. 46 patients were considered to have narrowed upper airway (MS 3&4). There was a significant correlation between MS and OSA ($p=0.002$; Fisher exact test). When compared with PSG, MS has a sensitivity of 97.8% and specificity of 60% (Table 1). The positive and negative predictive value was 95.7% and 75% respectively. In order to confirm that MS is an independent predictive factor for OSA, its correlation with BMI (another predictive factor for OSA) was analyzed with Spearman and $r=0.367$. **Conclusion:** MS has a significant correlation with OSA, and it is an independent predictive factor for OSA. **Clinical implication:** With the high prevalence of OSA and limited resources, valuable predictors for OSA are need for better utilization of resources and patient referral. MS, which can be measured easily, is a useful marker for patient screening purpose.

	OSA present	OSA absent	
MS 3 & 4	45	1	46
MS 1 & 2	2	3	5
	47	4	51

Table 1. 2x2 contingency table of MS and OSA