

## Revealing the Risks of Obstructive Sleep Apnea

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**Abstract :** Introduction: Obstructive sleep apnea (OSA) is a common disorder affecting at least 2% to 4% of the adult population. It is estimated that nearly 80% of men and 93% of women with moderate to severe sleep apnea are undiagnosed. A number of screening questionnaires and clinical screening models have been developed to help identify patients with OSA, also it's indeed to clinical practice. Purpose of study: Determine dependence of obstructive sleep apnea between for severe risk and risk factor. Material and Methods: A cross-sectional study included 114 patients presenting from the Central state 3th hospital and Central state 1th hospital. Patients who had obstructive sleep apnea (OSA) selected in this study. Standard StopBang questionnaire was obtained from all patients. According to the patients' response to the StopBang questionnaire was divided into low risk, intermediate risk, and high risk. Descriptive statistics were presented mean  $\pm$  standard deviation (SD). Each questionnaire was compared on the likelihood ratio for a positive result, the likelihood ratio for a negative test result of regression. Statistical analyses were performed utilizing SPSS 16. Results: 114 patients were obtained (mean age  $48 \pm 16$ , male 57) that divided to low risk 54 (47.4%), intermediate risk 33 (28.9%), high risk 27 (23.7%). Result of risk factor showed significantly increasing that mean age ( $38 \pm 13$  vs.  $54 \pm 14$  vs.  $59 \pm 10$ ,  $p < 0.05$ ), blood pressure ( $115 \pm 18$  vs.  $133 \pm 19$  vs.  $142 \pm 21$ ,  $p < 0.05$ ), BMI (24 IQR 22; 26 vs. 24 IQR 22; 29 vs. 28 IQR 25; 34,  $p < 0.001$ ), neck circumference ( $35 \pm 3.4$  vs.  $38 \pm 4.7$  vs.  $41 \pm 4.4$ ,  $p < 0.05$ ) were increased. Results from multiple logistic regressions showed that age is significantly independently factor for OSA (odds ratio 1.07, 95% CI 1.02-1.23,  $p < 0.01$ ). Predictive value of age was significantly higher factor for OSA (AUC=0.833, 95% CI 0.758-0.909,  $p < 0.001$ ). Our study showing that risk of OSA is beginning 47 years old (sensitivity 78.3%, specificity 74.1%). Conclusions: According to most of all patients' response had intermediate risk and high risk. Also, age, blood pressure, neck circumference and BMI were increased such as risk factor was increased for OSA. Especially age is independently factor and highest significance for OSA. Patients' age one year is increased likelihood risk factor 1.1 times is increased.

**Keywords :** obstructive sleep apnea, Stop-Bang, BMI (Body Mass Index), blood pressure

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