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OBSTRUCTIVE SLEEP APNEA IN HOSPITALIZED PATIENTS: A SINGLE CENTER EXPERIENCE

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Objective: Introduction: obstructive sleep apnea (OSA) is an important health problem associated with significant morbidity and mortality. Obesity is a potent risk factor for the development and progression of OSA. In adult population, the prevalence of OSA is estimated to be 25%, and as high as 45% in obese subjects.

Study objective: to present our OSA population characteristics and to investigate a correlation between BMI (body mass index) and AHI (apnea-hypopnea index)

Materials and methods: we retrospectively analyzed patients admitted to Clinical Hospital Centre Zagreb in 2016 who were evaluated for OSA and had positive polysomnography. Our cutoff point for OSA was AHI $\geq 15/h$ regardless of symptoms. We used statistical tests to establish a correlation between BMI and AHI. We presented a demographic data (age, sex), medical history (smoking) and the most common comorbidities.

Results: 93 patients, 30 woman and 63 man, median age was 60 (range 33 to 79). 41 non-smoker, 12 active smoker and 40 ex-smoker. Average Epworth was 10 (range 1 to 22), mean AHI was 54/h (range 15 to 119), mean BMI was 35kg/m² (range 25 to 53). 72% of the patients had BMI >30kg/m². There is a correlation between BMI and AHI ($p=0.01$), higher BMI is associated with higher AHI and correlation is more significant if BMI >35kg/m² ($p<0.001$, mean AHI 46,5 vs 63,3). Most common comorbidities were arterial hypertension (72%), cardiac arrhythmias (61%) and diabetes (26%).

Conclusion: Our results indicate that there is a correlation between AHI and BMI which is shown in previous

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studies. OSA is strongly associated with obesity. Obese individuals ($BMI > 30 \text{ kg/m}^2$) are at higher risk for OSA compared with non-obese individuals.