

# Prevalens Obstructive Sleep Apnea (OSA) pada pasien gagal jantung serta faktor-faktor risiko berdasarkan kuesioner berlin dan dilanjutkan pemeriksaan polisomnografi di RSUP Persahabatan Jakarta = Prevalence of obstructive Sleep Apnea (OSA) in heart failure patients and risk factors according to berlin questionnaire followed by polisomnography examination in Persahabatan Hospital Jakarta

Regina An Nisaa Harahap, author

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## Abstrak

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Abstrak :Obstructive Sleep Apnea (OSA) erat dikaitkan dengan penyakit metabolik seperti hipertensi dan dislipidemia. Pasien dengan OSA juga sering ditemukan pada pasien gagal jantung.Obsturctive sleep Apnea dapat memeperberat gagal jantung.

Objektif :Penelitian ini bertujuan mengetahuiprevalens dan faktor-faktor yang memengaruhi kejadian OSA pada pasien gagal jantung kronik di RSUP Persahabatan Jakarta.

Metode :Disain penelitian ini adalah potong lintang observasi. Pasien CHF FC I - II berkunjung ke poliklinik jantung dan vaskular RSUP Persahabatan yang memenuhi kriteria inklusi dan eksklusi. Subjek dilakukan anamnesis, pemeriksaan fisis dan eko kardiografi untuk memastikan diagnosis CHFdan dilanjutkan dengan wawancara menggunakan kuesioner Berlin untuk menentukan risiko tinggi OSA kemudian dilanjutkan pemeriksaan polisomnografi lalu dilakukan analisis statistik.

Hasil :Penelitian potong lintang ini dilakukan pada 70 sampel pasien gagal jantung. Dengan menggunakan kuesioner Berlin diperoleh sebanyak 42 pasien (60%) yang ditemukan berisiko tinggi OSA. Dengan menggunakan uji chi square ditemukan bahwa faktor usia ( $p=0,988$ ), jenis kelamin ( $p=0,678$ ), IMT ( $p=0,170$ ), lingkar leher ( $p=0,605$ ), lingkar perut ( $p=0,189$ ), tekanan darah ( $p=0,922$ ), merokok ( $p=0,678$ ) dan fraksi ejeksi  $\#8806;40\%$  ( $p= 0.109$ ) tidak ditemukan memiliki hubungan bermakna dengan risiko OSA pada pasien gagal jantung. Sementara faktor ukuran tonsil ditemukan memiliki hubungan bermakna ( $p=0,005$ ). Dari 42 orang tersebut dipilih secara acak 26 orang untuk dilakukan pemeriksaan lanjutan polisomnografi dan didapatkan pasien gagal jantung menderita OSA ringan dengan nilai AHI  $5 \leq 15$  sebanyak 7 pasien (26.7%), OSA sedang dengan AHI 15-30 sebanyak 9 pasien (34.5%) dan OSA berat dengan AHI $>30$  sebanyak 10 pasien (38.8%).

Kesimpulan :prevalens pasien CHF FC I - II yang memiliki risiko tinggi OSA berdasarkan kuesioner Berlin dengan nilai  $>2$  adalah sebanyak 42 orang (60%) dengan faktor risiko ukuran tonsil yang bermakna menyebabkan terjadinya OSA

pada CHF **ABSTRACT**  
Background: Obstructive Sleep Apnea (OSA) commonly associated

with

metabolic disease including hypertension and dyslipidemia. Patients with OSA is also commonly found in conjunction with heart failure condition.

Obstructive sleep apnea can cause CHF getting worse

Objective: This study aims to acknowledge prevalence of OSA and influence factors in heart failure patients in Persahabatan Hospital

Methods: This observational cross-sectional study was being done in 70 samples chronic heart failure patients who visited in cardio and vascular disease clinic in Persahabatan Hospital with functional class I - II who met the inclusion and exclusion criteria. Subjects were asked for history of disease, physical examination and echocardiography then underwent Berlin's Questionnaire then followed by polysomnography examination to detect the presence of OSA.

Results: Observational cross-sectional study done in 70 samples chi square test can be concluded that age ( $p=0,988$ ), gender ( $p=0,678$ ), Body Mass Index ( $p=0,170$ ), neck circumference ( $p=0,605$ ), abdominal circumference ( $p=0,189$ ), blood pressure ( $p=0,922$ ), smoking ( $p=0,678$ ) and ejection fraction  $\leq 40\%$  ( $p=0,109$ ), many factors are not significantly related to the risk of OSA in heart failure patients. Meanwhile, tonsillar size is found to have significantly related to incidence of OSA in heart failure patients ( $p=0,005$ ). 46 patients who have high risk of OSA by Berlin's questionnaire selected by random to get 26 patients who will follow polysomnography examination, result for patients CHF with mild OSA AHI 5 - 15 are 7 patients (26.7%), moderate OSA with AHI 15 - 30 are 9 patients (34.5%) and severe OSA with AHI  $\geq 30$  are 10 patients (38.8%).

Conclusion: The prevalence of CHF FC I - II with high risk OSA that screened by Berlin's Questionnaire in CHF patients are 43 patients (60%) with tonsillar size is found to have significantly related to incidence of OSA.; Background: Obstructive Sleep Apnea (OSA) commonly associated with

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