

European Respiratory Society Annual Congress 2012

Abstract Number: 328

Publication Number: P435

Abstract Group: 4.2. Sleep and Control of Breathing

Keyword 1: Sleep disorders **Keyword 2:** Apnoea / Hypopnea **Keyword 3:** Treatments

Title: Titration of continuous positive airway pressure in Chinese patients with obstructive sleep apnea

Ms. JiaYing 2000 Luo 84152405@qq.com MD ¹, Mr. ZhiHui 2001 Qiu qqh76@yahoo.com.cn ¹, Ms. YingXin 2002 Wu 41231678@qq.com ¹ and Prof. Dr Y.M. 2003 Luo ym3698@yahoo.com.cn ¹. ¹ State Key Laboratory of Respiratory Disease, Guangzhou Medical College, Guangzhou, China, 510120 .

Body: Objective Whether CPAP pressure derived from manual titration is the same as the pressure from automatic titrations is controversial. The purpose of this study was to compare the pressure derived from manual titration with the pressure from automatic titration. We also attempted to establish a formula to determine the appropriate CPAP pressure for Chinese individuals. Methods Fifty-one patients with OSA (mean apnea/hypopnea index [AHI]=50.6 ±18.6 events/hour) who were newly diagnosed after an overnight full polysomnography and who were willing to accept CPAP as a long-term treatment were recruited for the study. Manual titration under the full polysomnography monitoring and unattended automatic titration with an automatic CPAP device (REMstar-auto, Respironics Inc. USA) were performed. We also performed a separate cohort study of one hundred patients with OSA (AHI= 54.3±18.9 events/h) by observing the efficacy and safety of CPAP pressure derived from manual titration. Results The treatment pressure derived from automatic titration (9.8 ± 2.2 cmH₂O) was significantly higher than that derived from manual titration (7.3± 1.5 cmH₂O; p<0.001) in 51 patients. A cohort study of 100 patients showed that AHI was satisfactorily decreased after CPAP treatment using a pressure derived from manual titration (54.3±18.9 events/hour before treatment and 3.3±1.7 events/hour after treatment; P<0.001). Conclusion Our results suggest that automatic titration pressure derived from REMstar-auto, is usually higher than the pressure derived from manual titration. This work was funded by National Natural Science Foundation of China (Grant No.81120108001).