

# European Respiratory Society Annual Congress 2013

**Abstract Number:** 696

**Publication Number:** P2540

**Abstract Group:** 4.2. Sleep and Control of Breathing

**Keyword 1:** Apnoea / Hypopnea **Keyword 2:** Comorbidities **Keyword 3:** No keyword

**Title:** Cardiovascular, metabolic prognosis and mortality of the positional sleep apnea syndrome: An historical cohort study including 240 patients

Dr. Vanessa 8970 Bironneau vanessa.bironneau@laposte.net MD <sup>1</sup>, Dr. Elise 8971 Antone Elise.ANTONE@chu-poitiers.fr MD <sup>1</sup>, Prof. Pierre 8972 Ingrand Pierre.Ingrand@univ-poitiers.fr MD <sup>2</sup>, Prof. Joel 8973 Paquereau joel.paquereau@chu-poitiers.fr MD <sup>3</sup> and Prof. Jean Claude 8974 Meurice meurice@chu-poitiers.fr MD <sup>1</sup>. <sup>1</sup> Pneumology, CHU De Poitiers, Poitiers, France, 86000 ; <sup>2</sup> Department of Biostatistics, Faculty of Poitiers, Poitiers, France, 86000 and <sup>3</sup> Sleep Laboratory, CHU De Poitiers, Poitiers, France, 86000 .

**Body:** Introduction: Positional sleep apnea syndrome (PSAS) is poorly defined and rarely taken into account, whose complications have not been previously explored. Aim of the study: To evaluate the evolution of cardiovascular and metabolic complications, and mortality in PSAS patients, depending on the severity of the overall and supine apnea hypopnea index (IAH). The influence of continuous positive airway pressure (CPAP) was evaluated. Methods: A cohort study has been performed over a period of  $75.9 \pm 8$  months on 240 patients who benefited from an initial polysomnographic recording. They were divided into 3 groups: Normal-normal (NN; n=76) (AHI <10/h, supine AHI < 10/h) Normal-positional (NP; n=33) (global IAH <10/h, supine AHI > 10/h, non supine AHI <10/h), pure PSAS (PP) (global IAH > 10/h, supine AHI > 10/h, non supine AHI <10/h), the latter subdivided into PP AHI <30 (n=75) and PP IAH  $\geq$  30 (n=56). Results: Cardiovascular comorbidity, mainly represented by hypertension, was significantly higher in patients with PP AHI > 30 (p <0.0001), with an identical evolution in NP, PP AHI <30 and AHI  $\geq$  30 PP, significantly greater than in NN. The onset of diabetes was significantly higher for the NP group (21.9%) and PP AHI  $\geq$  30 (26.8%) (p = 0.003) correlated with weight, supine sleep respiratory disorders and nocturnal desaturation severity. No difference was found between groups in terms of mortality, and CPAP did not influence cardiovascular and metabolic evolution. Conclusion: PSAS is associated with an increased metabolic and cardiovascular comorbidity, and must be taken into account, even when the overall AHI is considered within normal range.