

中文題目:分析靜脈血二氧化碳值預測評估病患潛藏呼吸中止症

英文題目: Analysis of venous blood carbon dioxide values to predict patients with latent sleep apnea syndrome. Role of morning , evening venous blood gases interpretation in predicting patients with latent sleep apnea.

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Background: The health and welfare Department announced that the top ten causes of death in Taiwan were cancer, heart disease, hypertension, and cerebrovascular diseases in 2017. All of which were related to sleep apnea. What kind of crisis will "poor sleep" bring to society? Taiwan's drunk driving is rigorous, but it ignores the invisible killer's "sleeping drive". The number of accidents caused by fatigue in 2016 was more than 2,000, and there were more than 2,500 casualties. According to the Taiwan Sleep Medicine Society, 6 million people at least have sleep disorders in Taiwan .Nearly 450,000 of them suffer from sleep apnea but do not aware. Sleeping drive crisis is ignored! According to the market investigation for driver aged between 20 to 40. The sleep apnea high-risk group has more than 12 times more chances of accidentally falling asleep during driving than the low-risk group. The society is quite neglected sleep apnea which eventuate possible disaster.

Material and Methods: We used a prospective analysis of a small group of patients with dizziness, headache, difficulty breathing, fatigue, lack of sleep, and other symptoms related with

respiratory systems to exam venous blood if hypercapnia then arranged polysomnography for screening . All data were integrated for analysis.

Result: This small random cohort screened of small-scale populations, we found that venous blood carbon dioxide values are strongly related to AHI variation.

Discussion: Routine screening for hypercapnia in patients with sleep apnea might help to identify patients with sleep apnea .Simple screening questionnaires have been shown to reliably identify patients at risk. The serum venous bicarbonate level is an easy and reasonable test to screen for hypercapnia in obese patients with sleep apnea because it is readily available, physiologically sensible, and less invasive than arterial puncture to measure blood gases. Use this simple, inexpensive test to be the best serum marker. I analyzed a small cohort consisted 30 persons with random distribution and to find one closely related scientific phenomenon. Excluding other interfering factors, we found that hypercapnia in venous blood I in the morning or afternoon were strongly

positively correlated with abnormality of AH .This result is confirmed by PSG. The venous CO₂ level is an easy and reasonable test to screen for hypercapnia in patients with sleep apnea because of ready availability and less invasive than arterial puncture to measure blood gases values. Arterial blood gas analysis is commonly performed but the procedure limit patient acceptability (because of pain) and the potential to cause complications as arterial injury, thrombosis with distal ischemia, hemorrhage, and so on. Venous blood gas analysis is a relatively safer procedure as fewer punctures are required, thus also reducing the risk of needle stick injury to the health care worker.