

## CPAP Therapy Improves Stage 1 Sleep Nocturia in Patient with Obstructive Sleep Apnea

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## Introduction

- ICS (2002)  
Nocturia is the complaint that the individual has to wake at night one or more times to void
- Epidemiology
  - 50–59 years  
58% in women  
66% in men
  - > 80 years  
72% in women and  
91% in men

Middlekoop HA et al. Gerontol Biol Sci Med Sci 1996;

## Introduction

- Obstructive sleep apnea is (OSA) a widespread medical problem prevalence of up to 20-50%
- OSA and nocturia are two of the common causes of sleep disturbance and have been shown to impair the function, cognition and quality of life

Ancoli-Israel S, Sleep 1991

## Introduction

- Continuous positive airway pressure (CPAP) improve the symptoms of nocturia in patients with OSA.
- However, the relationship between nocturia and sleep architecture in the OSA patients under CPAP treatment are scarce.

## Purpose

- The objective of this study is to evaluate the efficacy of treatment and the difference of nocturia during sleep stage under the CPAP therapy in patients with OSA.

## Materials and Methods

- Prospectively study from Feb 2010 to January 2011
- Enrolled from GU clinic, Age 48-70, male
- Definition of frequently nocturia: nocturia at least 2/ per night, lasting over 3 months
- Exclusion:
  - Prostate > 30 gm, history of GU malignancy, residual urine > 100 ml, history of CVA, DM, CHF, depression, taking medications like corticosteroid or diuretic treatment