# BI-LEVEL POSITIVE AIRWAY PRESSURE TREATMENT OF OBSTRUCTIVE SLEEP APNEA SYNDROME

Thesis

Submitted for Partial Fulfillment of Doctor Degree of Chest Diseases

By

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# List of abbreviations

A Cross-sectional airway area A-CPAP Auto-titrating continuous positive airway pressure AHI Apnea hypopnea index AI Apnea index ANP Atrial Natuiretic Peptide APAP Auto titration positive airway pressure ASDA American sleep disorder associates AV O2 in all desaturations BC Before Christ BIPAP Bi-level positive airway pressure BMI Body mass index CBC Complete blood count CBT Core Body Temperature CHF Congestive heart failure CM/H2O Centimeter water CO2 Carbon dioxide COPD Chronic obstructive pulmonary disease CPAP Continuous positive airway pressure CRF Chronic renal failure CSA Central sleep apnea CSB Cheyne-Stokes breathing DI Desaturation index DM Diabetes mellitus ECG Electro-cardiogram EDS Excessive daytime somnolence EEG Electro-myogram EMG Electro-oculogram EPAP Expiratory positive airway pressure		
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EPAP Expiratory positive airway pressure	ENT	Ear, nose and throat
	EOG	Electro-oculogram
<b>ES</b> Electrical stimulation	EPAP	Expiratory positive airway pressure
	ES	Electrical stimulation

ESS	Epworth Sleepiness Scale
F-CPAP	fixed pressure continuous positive airway
r-CPAP	pressure
FDA	Food and drug administration
FEF25-75	Forced expiratory flow rate at 25% and
. 2. 20 70	75% of forced vital capacity
FEV1	Forced expiratory volume in the first
	second
FRC	Functional residual capacity
FS	Failed surgery.
FTT	Failure to thrive
FVC	Forced vital capacity
GGEMG	Genioglossus electromyography
НСТ	Hematocrit value
HI	Hypopnea index
Hz	<u>Hertz</u>
ICSI	Institute for Clinical Systems
1011	Improvement
ICU	Intensive care unit
IPAP	Inspiratory positive airway pressure
IPAPMax	Maximum limit of inspiratory time
<u>IPAPMin</u>	Minimum limit of inspiratory time
<u>IPPV</u>	Intermittent positive pressure ventilation
kg.m²	Kilogram per square meter
L/min	Liter per minute
LAUP	Laser-assisted uvulopalatoplasty
LOC	Left eye electrode
LSAT	Lowest oxygen saturation
LVEF	Left ventricular ejection fraction
MAD	Mean apnea duration
MDI	Metered dose inhalers
MHD	Mean hypopnea duration
mm	millimeter
mm/sec	Millimeter per second
MMA	Maxillomandibular advancement

mmHg	Millimeter mercury
Min O₂ value	Minimal O₂ value
MPA	Medroxyprogesterone acetate
MRI	Magnetic resonance imaging
MS	Mallampati score
MSLT	Multiple sleep latency test
MVV	Maximum voluntary ventilation
nCPAP	Nasal continuous positive airway pressure
NIDDM	Non-insulin-dependent diabetes mellitus
NIH	The National Institutes of Health
NPSG	Nocturnal Polysomnography
NREM	Non-rapid eye movement
OAs	Oral appliances
ODI	Oxygen desaturation index
ODI 10	Oxygen desaturations index <10%
ODI <sub>4</sub>	Oxygen desaturations index <u>&gt;</u> 4%
OI	Obstructive index
OSA	Obstructive sleep apnea
OSAHS	Obstructive sleep apnea hypopnea syndrome
OSAS	Obstructive sleep apnea syndrome
OSDB	Obstructive sleep disordered breathing
PA	Position alarm device
PaCO <sub>2</sub>	Partial pressure of arterial carbon dioxide
Pclose	Closing pressure
Pcrit	Critical pressure
PEEP	Positive end expiratory pressure.
$P_{ET}CO_2$	End tidal carbon dioxide
PI	Intraluminal pressure
PSG	Polysomnography
PSGD	Diagnostic polysomnography
PSGT	Titration polysomnography
Pti	Tissue pressure
Ptm	Transmural pressure

RAS	Reticular activating system
RCT	Randomized controlled trial
RDI	Respiratory disturbance index
REM	Rapid eye movement
RERA	Respiratory effort related arousal
ROC	Right eye electrode
RREP	Respiratory related evoked potential
SaO <sub>2</sub>	Arterial oxygen saturation
SAS	Sleep apnea syndrome
SCN	Suprachiasmatic nucleus
SDB	Sleep disordered breathing
SOB	Shortness of breath
SRBD	Sleep related breathing disorders
SWS	Slow wave sleep
TCRFTA	Temperature-controlled radiofrequency tissue ablation
TMJ	Temporomandibular joint
TRD	Tongue-retaining devices
UARS	Upper airway resistance syndrome
UPPP	Uvulopalatopharyngoplasty
V'E	Minute ventilation
WHO	World Health Organization

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