

# BÖLÜM 29

## Pap Titrasyonu



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### GİRİŞ

Uyku sırasında üst solunum yolunun tam veya kısmi tıkanması ile karakterize olan obstrüktif uyku apnesi (OSA) hastalarında standart tedavi yöntemi pozitif hava yolu basıncı (PAP) tedavisidir (1). PAP tedavisi üst hava yolunun açıklığını koruyarak obstrüktif solunum olaylarını [apne, hipopne, solunum çabasıyla ilgili uyarılma (RERA) ve horlama] önleyen pnömatik bir ateldir (2). Bir hastaya OSA teşhisi konulduktan sonra, tedavi amacıyla verilecek olan pozitif hava yolu basıncının ayarlandığı gözetimli polisomnografi (PSG) yapılmalıdır. Bu işlem PAP titrasyonu olarak tanımlanır. PAP titrasyonu amacıyla kullanılan tam gece (full-night) veya bölünmüş gece (split-night) manuel titrasyon yöntemleri ve otomatik titrasyonlu pozitif hava yolu basıncı (APAP) cihazları kullanılarak yapılan çeşitli yöntemler vardır (3).

### PAP SİSTEMİ VE PAP TİTRASYONU

OSA tedavisinde kullanılan bir PAP sistemi temel olarak üç ana bileşenden oluşmaktadır (1).

Bunlar;

- a) PAP cihazı,
- b) Yüze sıkıca tutunan bir nazal, oral veya oronazal ara yüz (nazal maske, nazal yastıklar, tam yüz maskesi) ve
- c) Cihazı ara yüze bağlayan esnek bir hortumdur.

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yon çalışmaları yapılmalıdır. Ayrıca PAP tedavi başarısının artırılması için hastaya en uygun basınçta tedavi başlanarak hastanın takip edilmesinin gerekliliği unutulmamalıdır.

## KAYNAKLAR

1. Kushida CA, Chediak A, Berry RB, et al. Positive Airway Pressure Titration Task Force; American Academy of Sleep Medicine. Clinical guidelines for the manual titration of positive airway pressure in patients with obstructive sleep apnea. *J Clin Sleep Med.* 2008;4(2):157-171.
2. Sullivan CE, Issa FG, Berthon-Jones M, et al. Reversal of obstructive sleep apnoea by continuous positive airway pressure applied through the nares. *Lancet.* 1981;1(8225):862-865.
3. Dias C, Sousa L, Batata L, et al. Titration with automatic continuous positive airway pressure in obstructive sleep apnea. *Rev Port Pneumol* (2006). 2017;23(4):203-207.
4. Sforza E, Krieger J, Bacon W, et al. Determinants of effective continuous positive airway pressure in obstructive sleep apnea. Role of respiratory effort. *Am J Respir Crit Care Med.* 1995;151(6):1852-1856.
5. Sullivan CE, Issa FG, Berthon-Jones M, et al. Home treatment of obstructive sleep apnoea with continuous positive airway pressure applied through a nose-mask. *Bull Eur Physiopathol Respir.* 1984;20(1):49-54.
6. Rowley JA, Tarbichi AG, Badr MS. The use of a predicted CPAP equation improves CPAP titration success. *Sleep Breath.* 2005;9(1):26-32.
7. Silva RS, Truksinas V, de Mello-Fujita L, et al. An orientation session improves objective sleep quality and mask acceptance during positive airway pressure titration. *Sleep Breath.* 2008;12(1):85-89.
8. Marcus CL, Ward SL, Mallory GB, et al. Use of nasal continuous positive airway pressure as treatment of childhood obstructive sleep apnea. *J Pediatr.* 1995;127(1):88-94.
9. Rains JC. Treatment of obstructive sleep apnea in pediatric patients. Behavioral intervention for compliance with nasal continuous positive airway pressure. *Clin Pediatr (Phila).* 1995;34(10):535-541.
10. Kakkar RK, Berry RB. Positive airway pressure treatment for obstructive sleep apnea. *Chest.* 2007;132(3):1057-1072.
11. Rauscher H, Formanek D, Zwick H. Nasal continuous positive airway pressure for nonapneic snoring? *Chest.* 1995;107(1):58-61.
12. Condos R, Norman RG, Krishnasamy I, et al. Flow limitation as a noninvasive assessment of residual upper-airway resistance during continuous positive airway pressure therapy of obstructive sleep apnea. *Am J Respir Crit Care Med.* 1994;150(2):475-80.
13. Kushida CA, Littner MR, Morgenthaler T, et al. Practice parameters for the indications for polysomnography and related procedures: an update for 2005. *Sleep.* 2005;28(4):499-521.
14. Strollo PJ Jr, Sanders MH, Costantino JP, et al. Split-night studies for the diagnosis and treatment of sleep-disordered breathing. *Sleep.* 1996;19(10 Suppl):S255-9.
15. McArdle N, Grove A, Devereux G, et al. Split-night versus full-night studies for sleep apnoea/hypopnoea syndrome. *Eur Respir J.* 2000;15(4):670-675.
16. Berry, R.B. (2002). Medical therapy. In: J.T. Johnson, J.L. Gluckman, & M.H. Sanders, (Eds.), *Obstructive sleep apnea.* (pp. 89-118). London: Martin Dunniz.
17. Schwartz AR, Kacmarek RM, Hess DR. Factors affecting oxygen delivery with bi-level positive airway pressure. *Respir Care.* 2004;49(3):270-275.
18. Weaver TE, Kribbs NB, Pack AI, et al. Night-to-night variability in CPAP use over the first three months of treatment. *Sleep.* 1997;20(4):278-283.

19. Engleman HM, Wild MR. Improving CPAP use by patients with the sleep apnoea/hypopnoea syndrome (SAHS). *Sleep Med Rev.* 2003;7(1):81-99.
20. Epstein LJ, Kristo D, Strollo PJ Jr, et al. Adult Obstructive Sleep Apnea Task Force of the American Academy of Sleep Medicine. Clinical guideline for the evaluation, management and long-term care of obstructive sleep apnea in adults. *J Clin Sleep Med.* 2009;5(3):263-276.
21. Morgenthaler TI, Aurora RN, Brown T, et al. Standards of Practice Committee of the AASM; American Academy of Sleep Medicine. Practice parameters for the use of autotitrating continuous positive airway pressure devices for titrating pressures and treating adult patients with obstructive sleep apnea syndrome: an update for 2007. An American Academy of Sleep Medicine report. *Sleep.* 2008;31(1):141-147.
22. Ahmed O, Parthasarathy S. APAP and Alternative Titration Methods. *Sleep Med Clin.* 2010;5(3):361-368.
23. Kapur VK, Auckley DH, Chowdhuri S, et al. Clinical Practice Guideline for Diagnostic Testing for Adult Obstructive Sleep Apnea: An American Academy of Sleep Medicine Clinical Practice Guideline. *J Clin Sleep Med.* 2017;13(3):479-504.
24. Berry RB, Parish JM, Hartse KM. The use of auto-titrating continuous positive airway pressure for treatment of adult obstructive sleep apnea. An American Academy of Sleep Medicine review. *Sleep.* 2002;25(2):148-173.
25. Patil SP, Ayappa IA, Caples SM, et al. Treatment of Adult Obstructive Sleep Apnea with Positive Airway Pressure: An American Academy of Sleep Medicine Clinical Practice Guideline. *J Clin Sleep Med.* 2019;15(2):335-343.
26. Morgenthaler TI, Gay PC, Gordon N, et al. Adaptive servoventilation versus noninvasive positive pressure ventilation for central, mixed, and complex sleep apnea syndromes. *Sleep.* 2007;30(4):468-475.