

BÖLÜM 10

GRAVES HASTALIĞINDA CERRAHİ TEDAVİNİN YERİ

Kenan ÇETİN¹

GİRİŞ

Graves hastalığı (GH), hipertiroidizm, guatr, göz bulguları (orbitopati) ve bazen pretibial veya lokalize miknödem olarak adlandırılan dermatopatileri de içeren otoimmün bir hastalıktır. İlk kez 1835 yılında Robert Graves tarafından tanımlanan bu hastalık hipertiroidinin (%60-80) en sık nedenidir (1). Hastalığın insidansı 24,8/100.000, kadın/erkek etkilenme oranı 3,9/1 olarak (2), hayat boyu risk ise kadınlarda ve erkeklerde sırası ile %3 ve %0,5 olarak bildirilmiştir (3). Kadınların yaklaşık %2'sini, erkeklerin ise %0,2'sini etkileyebilmektedir (4). Herhangi bir yaşta görülebilmekle birlikte en sık reproduktif çağıdaki kadınlarda ortaya çıkar (5). Hipertiroidizm, GH'nın en yaygın özelliğidir ve neredeyse tüm hastaları etkiler. TSH (tiroit uyarıcı hormon) reseptörlerine karşı gelişen oto-antikörlerin (TRAb) reseptörlere bağlanıp onları aktive etmesi sonucu tiroit hormon sentezi ve salınımında artış olur. Bu durum sadece hipertiroidi ile değil aynı zamanda tiroit bezinin diffüz büyümesi (diffüz guatr) ile de sonuçlanır. Serumda TRAb varlığı ve klinik muayenede orbitopatinin

saptanması, GH'nı diğer hipertiroidizm nedenlerinden ayırır.

Graves'in hipertiroidizmine terapötik yaklaşım, hem semptomların bir beta blokör ile hızlı bir şekilde iyileştirilmesinden hem de tiroit hormonu sentezini azaltmayı amaçlayan tedavilerden oluşur. Bu tedaviler tiyonomid (antitiroit ilaçlar- ATİ) uygulaması, radyoaktif iyot ablasyonu (RAİ) ve cerrahi olarak sıralanabilir.

Bu bölümde Amerikan Tiroit Derneği'nin (ATA) hipertiroidizm yönetimi yönergelerine bağlı kalınarak GH'nın tedavisi tartışılacak ancak hastalığın cerrahi tedavisine ağırlık verilecektir.

SEMPTOMLARIN KONTROLÜ

Graves hastalığında artan beta-adrenerjik tonusa bağlı hipertiroidi semptomları oldukça sık görülür. Bu semptomlar çarpıntı, taşikardi, titreme, terleme, anksiyete, uykusuzluk, yorgunluk, nefes darlığı, göğüs ağrısı, ishal, iştah artışına rağmen kilo kaybı ve ısıya tahammülsüzlüğü içerir. GH tanısı konan bir hastaya hipertiroidi semptomlarını kontrol altına almak için, eğer

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KAYNAKLAR

1. Girgis CM, Champion BL, Wall JR. Current concepts in graves' disease. *Ther Adv Endocrinol Metab.* 2011;2(3):135-44 DOI: 10.1177/2042018811408488.
2. Hussain YS, Hookham JC, Allahabadia A, et al. Epidemiology, management and outcomes of Graves' disease-real life data. *Endocrine.* 2017;56(3):568-78 DOI: 10.1007/s12020-017-1306-5.
3. Pokhrel B, Bhusal K. Graves Disease. [Updated 2020 Jul 21]. In: *StatPearls* [Internet]. Treasure Island (FL): StatPearls Publishing; 2020 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK448195/>
4. Tunbridge WM, Evered DC, Hall R, et al. The spectrum of thyroid disease in a community: the Wickham survey. *Clin Endocrinol (Oxf).* 1977;7(6):481-93 DOI: 10.1111/j.1365-2265.1977.tb01340.x.
5. Berglund J, Christensen SB, Hallengren B. Total and age-specific incidence of Graves' thyrotoxicosis, toxic nodular goitre and solitary toxic adenoma in Malmö 1970-74. *J Intern Med.* 1990;227(2):137-41 DOI: 10.1111/j.1365-2796.1990.tb00132.x.
6. Geffner DL, Hershman JM. Beta-adrenergic blockade for the treatment of hyperthyroidism. *Am J Med.* 1992;93(1):61-8 DOI: 10.1016/0002-9343(92)90681-z.
7. Tagami T, Yambe Y, Tanaka T, et al. Short-term effects of β -adrenergic antagonists and methimazole in new-onset thyrotoxicosis caused by Graves' disease. *Intern Med.* 2012;51(17):2285-90 DOI: 10.2169/internalmedicine.51.7302.
8. Törring O, Tallstedt L, Wallin G, et al. Graves' hyperthyroidism: treatment with antithyroid drugs, surgery, or radioiodine--a prospective, randomized study. *Thyroid Study Group. J Clin Endocrinol Metab.* 1996;81(8):2986-93 DOI: 10.1210/jcem.81.8.8768863.
9. Ross DS, Burch HB, Cooper DS, et al. 2016 American Thyroid Association Guidelines for Diagnosis and Management of Hyperthyroidism and Other Causes of Thyrotoxicosis. *Thyroid.* 2016;26(10):1343-421 DOI: 10.1089/thy.2016.0229.
10. Laurberg P, Buchholtz Hansen PE, Iversen E, et al. Goitre size and outcome of medical treatment of Graves' disease. *Acta Endocrinol (Copenh).* 1986;111(1):39-43 DOI: 10.1530/acta.0.1110039.
11. Laurberg P. Remission of Graves' disease during anti-thyroid drug therapy. Time to reconsider the mechanism? *Eur J Endocrinol.* 2006;155(6):783-6 DOI: 10.1530/eje.1.02295.
12. Uchida T, Goto H, Kasai T, et al. Therapeutic effectiveness of potassium iodine in drug-naïve patients with Graves' disease: a single-center experience. *Endocrine.* 2014;47(2):506-11 DOI: 10.1007/s12020-014-0171-8.
13. Burch HB, Solomon BL, Cooper DS, et al. The effect of antithyroid drug pretreatment on acute changes in thyroid hormone levels after (131)I ablation for Graves' disease. *J Clin Endocrinol Metab.* 2001;86(7):3016-21 DOI: 10.1210/jcem.86.7.7639.
14. Bahn Chair RS, Burch HB, Cooper DS, et al. Hyperthyroidism and other causes of thyrotoxicosis: management guidelines of the American Thyroid Association and American Association of Clinical Endocrinologists. *Thyroid.* 2011;21(6):593-646 DOI: 10.1089/thy.2010.0417.
15. Burch HB, Cooper DS. Management of Graves Disease: A Review. *Jama.* 2015;314(23):2544-54 DOI: 10.1001/jama.2015.16535.
16. Wiersinga WM. Advances in treatment of active, moderate-to-severe Graves' ophthalmopathy. *Lancet Diabetes Endocrinol.* 2017;5(2):134-42 DOI: 10.1016/s2213-8587(16)30046-8.
17. Kotwal A, Stan M. Current and Future Treatments for Graves' Disease and Graves' Ophthalmopathy. *Horm Metab Res.* 2018;50(12):871-86 DOI: 10.1055/a-0739-8134.
18. De Bellis A, Conzo G, Cennamo G, et al. Time course of Graves' ophthalmopathy after total thyroidectomy alone or followed by radioiodine therapy: a 2-year longitudinal study. *Endocrine.* 2012;41(2):320-6 DOI: 10.1007/s12020-011-9559-x.
19. Allahabadia A, Daykin J, Holder RL, et al. Age and gender predict the outcome of treatment for Graves' hyperthyroidism. *J Clin Endocrinol Metab.* 2000;85(3):1038-42 DOI: 10.1210/jcem.85.3.6430.
20. Rivkees SA. The treatment of Graves' disease in children. *J Pediatr Endocrinol Metab.* 2006;19(9):1095-111 DOI: 10.1515/jpem.2006.19.9.1095.
21. Magri F, Zerbini F, Gaiti M, et al. Gender Influences The Clinical Presentation And Long-Term Outcome Of Graves Disease. *Endocr Pract.* 2016;22(11):1336-42 DOI: 10.4158/ep161350.Or.
22. Sisson JC, Freitas J, McDougall IR, et al. Radiation safety in the treatment of patients with

- thyroid diseases by radioiodine 131I : practice recommendations of the American Thyroid Association. *Thyroid*. 2011;21(4):335-46 DOI: 10.1089/thy.2010.0403.
23. Patel KN, Yip L, Lubitz CC, et al. The American Association of Endocrine Surgeons Guidelines for the Definitive Surgical Management of Thyroid Disease in Adults. *Ann Surg*. 2020;271(3):e21-e93 DOI: 10.1097/sla.0000000000003580.
 24. Maurer E, Maschuw K, Reuss A, et al. Total Versus Near-total Thyroidectomy in Graves Disease: Results of the Randomized Controlled Multicenter TONIG-trial. *Ann Surg*. 2019;270(5):755-61 DOI: 10.1097/sla.0000000000003528.
 25. Palit TK, Miller CC, 3rd, Miltenburg DM. The efficacy of thyroidectomy for Graves' disease: A meta-analysis. *J Surg Res*. 2000;90(2):161-5 DOI: 10.1006/jsre.2000.5875.
 26. Makiuchi M, Miyakawa M, Sugeno A, et al. An evaluation of several prognostic factors in the surgical treatment for thyrotoxicosis. *Surg Gynecol Obstet*. 1981;152(5):639-41.
 27. Lin YS, Lin JD, Hsu CC, et al. The long-term outcomes of thyroid function after subtotal thyroidectomy for Graves' hyperthyroidism. *J Surg Res*. 2017;220:112-8 DOI: 10.1016/j.jss.2017.06.091.
 28. Barczyński M, Konturek A, Hubalewska-Dydejczyk A, et al. Randomized clinical trial of bilateral subtotal thyroidectomy versus total thyroidectomy for Graves' disease with a 5-year follow-up. *Br J Surg*. 2012;99(4):515-22 DOI: 10.1002/bjs.8660.
 29. Weber KJ, Solorzano CC, Lee JK, et al. Thyroidectomy remains an effective treatment option for Graves' disease. *Am J Surg*. 2006;191(3):400-5 DOI: 10.1016/j.amjsurg.2005.10.043.
 30. Erbil Y, Ozluk Y, Giriş M, et al. Effect of lugol solution on thyroid gland blood flow and microvessel density in the patients with Graves' disease. *J Clin Endocrinol Metab*. 2007;92(6):2182-9 DOI: 10.1210/jc.2007-0229.
 31. Randle RW, Bates MF, Long KL, et al. Impact of potassium iodide on thyroidectomy for Graves' disease: Implications for safety and operative difficulty. *Surgery*. 2018;163(1):68-72 DOI: 10.1016/j.surg.2017.03.030.
 32. Baeza A, Aguayo J, Barria M, et al. Rapid preoperative preparation in hyperthyroidism. *Clin Endocrinol (Oxf)*. 1991;35(5):439-42 DOI: 10.1111/j.1365-2265.1991.tb03562.x.
 33. Adlerberth A, Stenström G, Hasselgren PO. The selective beta 1-blocking agent metoprolol compared with antithyroid drug and thyroxine as preoperative treatment of patients with hyperthyroidism. Results from a prospective, randomized study. *Ann Surg*. 1987;205(2):182-8 DOI: 10.1097/00000658-198702000-00013.
 34. Vickers P, Garg KM, Arya R, et al. The role of selective beta 1-blocker in the preoperative preparation of thyrotoxicosis: a comparative study with propranolol. *Int Surg*. 1990;75(3):179-83.
 35. Feek CM, Sawers JS, Irvine WJ, et al. Combination of potassium iodide and propranolol in preparation of patients with Graves' disease for thyroid surgery. *N Engl J Med*. 1980;302(16):883-5 DOI: 10.1056/nejm198004173021602.
 36. Werga-Kjellman P, Zedenius J, Tallstedt L, et al. Surgical treatment of hyperthyroidism: a ten-year experience. *Thyroid*. 2001;11(2):187-92 DOI: 10.1089/105072501300042947.
 37. Rubio GA, Koru-Sengul T, Vaghaiwalla TM, et al. Postoperative Outcomes in Graves' Disease Patients: Results from the Nationwide Inpatient Sample Database. *Thyroid*. 2017;27(6):825-31 DOI: 10.1089/thy.2016.0500.
 38. Noordzij JP, Lee SL, Bernet VJ, et al. Early prediction of hypocalcemia after thyroidectomy using parathyroid hormone: an analysis of pooled individual patient data from nine observational studies. *J Am Coll Surg*. 2007;205(6):748-54 DOI: 10.1016/j.jamcollsurg.2007.06.298.
 39. Promberger R, Ott J, Kober F, et al. Normal parathyroid hormone levels do not exclude permanent hypoparathyroidism after thyroidectomy. *Thyroid*. 2011;21(2):145-50 DOI: 10.1089/thy.2010.0067.
 40. Annerbo M, Hultin H, Stålberg P, et al. Left-shifted relation between calcium and parathyroid hormone in Graves' disease. *J Clin Endocrinol Metab*. 2014;99(2):545-51 DOI: 10.1210/jc.2013-2500.
 41. Bellantone R, Lombardi CP, Raffaelli MP, et al. Video-assisted thyroidectomy. *Asian J Surg*. 2002;25(4):315-8 DOI: 10.1016/s1015-9584(09)60198-6.