

BÖLÜM 32

TİROİD KANSERİNDE BOYUN DİSEKSİYONU

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En sık görülen endokrin malignitesi tiroid kanseridir. Tiroid kanseri sınıflamasında bir karmaşa olmasına rağmen ana hatlarıyla diferansiye tiroid kanseri, medüller tiroid kanseri ve anaplastik tiroid kanseri olmak üzere üç ana grupta incelenir. Son 3 dekadda tanı ve izleme yöntemlerindeki gelişmeler nedeniyle özellikle iyi diferansiye tiroid kanserleri başta olmak üzere tiroid kanseri insidansında artış olduğu belirlenmiştir(1,2). İyi diferansiye tiroid kanserleri papiller ve folliküler olmak üzere ikiye ayrılır. Papiller tiroid kanserleri bu grubun %95 ini oluşturmaktadır. Papiller tiroid kanserlerinde %80'e varan oranlarda mikroskobik lenf nodu metastazı saptanabilmektedir.

Tiroid kanserinde lenf nodu diseksiyonunun sağ kalım ve nüks üzerine olumlu etki sağlaması için sadece metastatik lenf nodlarının çıkarılmasının (berry picking) yeterli olup olmadığı hala tartışmalıdır. Lenf nodu diseksiyonunun doğru yapılabilmesi ve diseksiyon genişliğinin belirlenebilmesi için tiroid bezinin lenfatik anatomisinin iyi bilinmesi gerekmektedir.

TARİHÇE

Tiroid kanserinin lenf nodlarına metastaz yaptığı 19.yüzyılın başlarından beri bilimektedir. Fakat cerrahlar küratif bir diseksiyonun yapılamayacağını düşünmekteydi(4). Boyun lenf nodlarının radikal diseksiyonunu ilk olarak Polonyalı cerrah Jawdyski 1888 yılında bir Polonya tıp dergisinde yayınlamıştı(4). Fakat radikal boyun diseksiyonunun sistematik olarak tanımlayan Cleveland Klinikten Crile olmuştur. Bu konudaki en geniş seriler 1905 ve 1906 yıllarında yayınlamıştır(5).

İnsan lenfatik sistemi anatomisiyle ilgili ilk çalışma 1932 yılında yayınlandı. Bu çalışma boyun lenf nodu duraklarının tanımlanmasının önünü açtı. Bu çalışma sonrası Memorial Sloan-Kettering Kanser merkezinde boyunun lateral lenf nodu kompartmanlarını 5 ana grupta sınıflandıran bir şema oluşturuldu. Bu şema günümüzde kullanılan lenf nodu bölgelerinin temelini oluşturmuştur.

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KAYNAKLAR

1. Cabanillas ME, McFadden DG, Durante C. Thyroid cancer. *Lancet* 2016;388:2783–95.
2. Gillanders SL, O'Neill JP. Prognostic markers in well differentiated papillary and follicular thyroid cancer (WDTC). *Eur J Surg Oncol* 2018;44:286–296
3. Ferlito A, Rinaldo A, Silver CE, et al. Neck dissection: then and now. *Auris Nasus Larynx* 2006;33:365–74.
4. Jawdyski F. A case of the primary cancer of the neck, so-called Volkmann's branchiogenic cancer. Resection together with internal jugular vein and common carotid artery. *Cure Gaz Lek* 1888;23:530-7.
5. Robbins KT, Medina JE, Wolfe GT, Levine PA, Sessions RB, Pruet CW. Standardizing neck dissection terminology. Official report of the Academy's Committee for Head and Neck Surgery and Oncology. *Arch Otolaryngol Head Neck Surg* 1991;117:601–5.
6. Robbins KT, Clayman G, Levine PA, Medina J, Sessions R, Shaha A, et al.; American Head and Neck Society; American Academy of Otolaryngology-Head and Neck Surgery. Neck dissection classification update: revisions proposed by the American Head and Neck Society and the American Academy of Otolaryngology-Head and Neck Surgery. *Arch Otolaryngol Head Neck Surg* 2002;128:751–8.
7. Robbins KT, Shaha AR, Medina JE, Califano JA, Wolf GT, Ferlito A, et al; Committee for Neck Dissection Classification, American Head and Neck Society. Consensus statement on the classification and terminology of neck dissection. *Arch Otolaryngol Head Neck Surg* 2008;134:536–8.
8. Carty SE, Cooper DS, Doherty GM, et al. American Thyroid Association Surgery Working Group; American Association of Endocrine Surgeons; American Academy of Otolaryngology-Head and Neck Surgery; American Head and Neck Society. Consensus statement on the terminology and classification of central neck dissection for thyroid cancer. *Thyroid* 2009;19:1153–8.
9. İşgör A, Uludağ A. Boynun fonksiyonel ve cerrahi anatomisi. In: İşgör A, Uludağ M, editor. *Tiroit*. 1st. İstanbul: Nobel Tıp Kitabevleri; 2013. p.749–73.
10. Som PM, Curtin HD, Mancuso AA. An imaging-based classification for the cervical nodes designed as an adjunct to recent clinically based nodal classifications. *Arch Otolaryngol Head Neck Surg* 1999;125:388-396. PMID:10208676
11. Ferlito A, Robbins KT, Silver CE, et al. Classification of neck dissections: an evolving system. *Auris Nasus Larynx* 2009;36(2):127-34. Epub 2008 Nov 18. <http://dx.doi.org/10.1016/j.anl.2008.09.002> PMID:19019596
12. Güney E, Çağlı S, Yüce İ. *Tiroid ve Paratiroid Cerrahi Hastalıkları*, İstanbul: İyışler Matbaası 2008; 215-244.
13. Shaha AR. Complications of neck dissection for thyroid cancer. *Ann Surg Oncol* 2008;15(2):397-9. Epub 2007 Dec 6. <http://dx.doi.org/10.1245/s10434-007-9724-x> PMID:18058179 PMID:2244697
14. Grubbs EG, Evans DB. Role of lymph node dissection in primary surgery for thyroid cancer. *J Natl Compr Canc Netw* 2007; 5:623.
15. Stulak JM, Grant CS, Farley DR, et al. Value of preoperative ultrasonography in the surgical management of initial and reoperative papillary thyroid cancer. *Arch Surg* 2006; 141:489.
16. Noguchi S, Noguchi A, Murakami N. Papillary carcinoma of the thyroid. I. Developing pattern of metastasis. *Cancer* 1970; 26:1053.
17. Caron NR, Tan YY, Ogilvie JB, et al. Selective modified radical neck dissection for papillary thyroid cancer-is level I, II and V dissection always necessary? *World J Surg* 2006; 30:833.
18. Chung YS, Kim JY, Bae JS, et al. Lateral lymph node metastasis in papillary thyroid carcinoma: results of therapeutic lymph node dissection. *Thyroid* 2009; 19:241.
19. Park JH, Lee YS, Kim BW, et al. Skip lateral neck node metastases in papillary thyroid carcinoma. *World J Surg* 2012; 36:743.
20. Howell GM, Nikiforova MN, Carty SE, et al. BRAF V600E mutation independently predicts central compartment lymph node metastasis in patients with papillary thyroid cancer. *Ann Surg Oncol* 2013; 20:47.
21. Roh JL, Kim JM, Park CI. Central lymph node metastasis of unilateral papillary thyroid carcinoma: patterns and factors predictive of nodal metastasis, morbidity, and recurrence. *Ann Surg Oncol* 2011; 18:2245.
22. Cooper DS, Doherty GM, Haugen BR, et al. Management guidelines for patients with thyroid nodules and differentiated thyroid cancer. *Thyroid* 2006; 16:109.

23. Yeh MW, Bauer AJ, Bernet VA, et al. American Thyroid Association statement on preoperative imaging for thyroid cancer surgery. *Thyroid* 2015; 25:3.
24. Choi JS, Kim J, Kwak JY, et al. Preoperative staging of papillary thyroid carcinoma: comparison of ultrasound imaging and CT. *AJR Am J Roentgenol* 2009; 193:871.
25. Kaplan SL, Mandel SJ, Muller R, et al. The role of MR imaging in detecting nodal disease in thyroidectomy patients with rising thyroglobulin levels. *AJNR Am J Neuroradiol* 2009; 30:608.
26. Zaydfudim V, Feurer ID, Griffin MR, Phay JE. The impact of lymph node involvement on survival in patients with papillary and follicular thyroid carcinoma. *Surgery* 2008; 144:1070.
27. Wada N, Masudo K, Nakayama H, et al. Clinical outcomes in older or younger patients with papillary thyroid carcinoma: impact of lymphadenopathy and patient age. *Eur J Surg Oncol* 2008; 34:202.
28. Gemsenjäger E, Perren A, Seifert B, et al. Lymph node surgery in papillary thyroid carcinoma. *J Am Coll Surg* 2003; 197:182.
29. Bardet S, Malville E, Rame JP, et al. Macroscopic lymph-node involvement and neck dissection predict lymph-node recurrence in papillary thyroid carcinoma. *Eur J Endocrinol* 2008; 158:551.
30. Calò PG, Conzo G, Raffaelli M, et al. Total thyroidectomy alone versus ipsilateral versus bilateral prophylactic central neck dissection in clinically node-negative differentiated thyroid carcinoma. A retrospective multicenter study. *Eur J Surg Oncol* 2017; 43:126.
31. Sippel RS, Chen H. Controversies in the surgical management of newly diagnosed and recurrent/residual thyroid cancer. *Thyroid* 2009; 19:1373.
32. Chisholm EJ, Kulinskaya E, Tolley NS. Systematic review and meta-analysis of the adverse effects of thyroidectomy combined with central neck dissection as compared with thyroidectomy alone. *Laryngoscope* 2009; 119:1135.
33. Ondik MP, Dezfoli S, Lipinski L, et al. Secondary central compartment surgery for thyroid cancer. *Laryngoscope* 2009; 119:1947.
34. Bonnet S, Hartl D, Leboulleux S, et al. Prophylactic lymph node dissection for papillary thyroid cancer less than 2 cm: implications for radioiodine treatment. *J Clin Endocrinol Metab* 2009; 94:1162.
35. Mazzaferri EL, Doherty GM, Steward DL. The pros and cons of prophylactic central compartment lymph node dissection for papillary thyroid carcinoma. *Thyroid* 2009; 19:683.
36. Alvarado R, Sywak MS, Delbridge L, Sidhu SB. Central lymph node dissection as a secondary procedure for papillary thyroid cancer: Is there added morbidity? *Surgery* 2009; 145:514.
37. Clayman GL, Shellenberger TD, Ginsberg LE, et al. Approach and safety of comprehensive central compartment dissection in patients with recurrent papillary thyroid carcinoma. *Head Neck* 2009; 31:1152.
38. Lee YS, Kim SW, Kim SW, et al. Extent of routine central lymph node dissection with small papillary thyroid carcinoma. *World J Surg* 2007; 31:1954.
39. Cavicchi O, Piccin O, Caliceti U, et al. Transient hypoparathyroidism following thyroidectomy: a prospective study and multivariate analysis of 604 consecutive patients. *Otolaryngol Head Neck Surg* 2007; 137:654.
40. Sosa JA, Bowman HM, Tielsch JM, et al. The importance of surgeon experience for clinical and economic outcomes from thyroidectomy. *Ann Surg* 1998; 228:320.
41. Friedman M, Pacella BL Jr. Total versus subtotal thyroidectomy. Arguments, approaches, and recommendations. *Otolaryngol Clin North Am* 1990; 23:413.
42. Gupta PK, Smith RB, Gupta H, et al. Outcomes after thyroidectomy and parathyroidectomy. *Head Neck* 2012; 34:477.
43. Giordano D, Valcavi R, Thompson GB, et al. Complications of central neck dissection in patients with papillary thyroid carcinoma: results of a study on 1087 patients and review of the literature. *Thyroid* 2012; 22:911.
44. So YK, Seo MY, Son YI. Prophylactic central lymph node dissection for clinically node-negative papillary thyroid microcarcinoma: influence on serum thyroglobulin level, recurrence rate, and postoperative complications. *Surgery* 2012; 151:192.
45. Wang TS, Cheung K, Farrokhyar F, et al. A meta-analysis of the effect of prophylactic central compartment neck dissection on locoregional recurrence rates in patients with papillary thyroid cancer. *Ann Surg Oncol* 2013; 20:3477.
46. Henry JF, Gramatica L, Denizot A, et al. Morbidity of prophylactic lymph node dissection in the central neck area in patients with papillary thyroid carcinoma. *Langenbecks Arch Surg* 1998; 383:167.

47. Toniato A, Boschini IM, Piotto A, et al. Complications in thyroid surgery for carcinoma: one institution's surgical experience. *World J Surg* 2008; 32:572.
48. Rubello D, Salvatori M, Casara D, et al. ^{99m}Tc-sesamibi radio-guided surgery of loco-regional ¹³¹Iodine-negative recurrent thyroid cancer. *Eur J Surg Oncol* 2007; 33:902.
49. Cheah WK, Arici C, Ituarte PH, et al. Complications of neck dissection for thyroid cancer. *World J Surg* 2002; 26:1013.
50. Mekeel M, Stephen AE, Gaz RD, et al. Surgical drains can be safely avoided in lateral neck dissections for papillary thyroid cancer. *Am J Surg* 2010; 199:485.
51. Lee SW, Choi EC, Lee YM, et al. Is lack of placement of drains after thyroidectomy with central neck dissection safe? A prospective, randomized study. *Laryngoscope* 2006; 116:1632.
52. Wells SA Jr, Asa SL, Dralle H, et al. Revised American Thyroid Association guidelines for the management of medullary thyroid carcinoma. *Thyroid* 2015; 25:567.
53. Machens A, Dralle H. Biomarker-based risk stratification for previously untreated medullary thyroid cancer. *J Clin Endocrinol Metab* 2010; 95:2655.