GEBELİKTE TİROİD KANSERİNE CERRAHİ YAKLAŞIM

45. BÖLÜM

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GİRİŞ

Tiroid kanseri gebelik döneminde en sık görülen 2. Kanser (meme kanserini takiben) tipidir (1,2). Görülme sıklığı 100.000 doğumda 14 olup, en sık görüldüğü dönem ise 25-30 yaş aralığıdır (3,4). Kadınlarda üreme dönemindeki tiroid kanserlerinin %10'u gebelik sırasında veya erken postpartum dönemde ortaya çıkar (5). En sık saptanan histolojik alt tip 'papiller karsinoma'dır (3,4). Genellikle serbest T4 ve TSH değerlerinin prenatal dönemde normal değer aralığında olmadığının tespit edilmesi üzerine yapılan incelemeler ardından uygulanan ince iğne aspirasyon biopsisi (İİAB) yoluyla tanı konur. Hastalar çoğunlukla asemptomatiktir (6). Klinisyenlerin en büyük sorunu aynı anda hem anneyi hem de gelişmekte olan çocuğu birlikte ele alıp, takip etmektir (7,8). Tiroid kanserinin tanı ve tedavisine dair protokoller, toplumun diğer yaş ve cinsiyet gruplarıyla ana hatlarıyla aynı olmakla birlikte gebelik döneminde birtakım kısıtlamalar ve farklılıklar da bulunmaktadır, örneğin cerrahinin zamanlaması ve radyoaktif iyot ablasyon tedavisinin gebelik devam ederken uygulanmaması gibi (8). Gebelik sırasında tiroid kanseri teşhisi konulması, hastalarda anksiyete gelişmesine sebep olur (hem kendi sağlıkları hem de çocuğun durumu açısından). Bu durum cerrahinin ve diğer tedavi modalitelerinin zamanlamaları ve uygulama biçimleri konusunda endişe ve tereddüte yol açar (4,5,9). Gebelik devam ederken görülen tiroid kanserini ele alırken; cerrahinin zamanlaması, gebelik sürerken tiroid kanserine yönelik sistemik tedavi ve gebeliğin tiroid kanserinin yol açtığı sonuçlara etkileri gibi tartışılması gereken birçok konu mevcuttur (8). Radyoaktif iyot ablasyon (RAI) tedavisinin uygulanması ve tiroid kanseri tedavisi gerçekleştirildikten sonra levotiroksin (l-T4) verilmesi hususları değerlendirilirken de gelecekteki olası gebelikler dikkate alınmalıdır (8).

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anlamda kabul gören yaklaşım; diferansiye tiroid kanserlerinde; ciddiyet ve risk arz eden durumlarda (hızla büyüyen servikal lenf nodu metastazları, hızla büyüyen tümörler ve ciddi bası bulguları gibi) cerrahi girişimin 2. trimesterde yapılması; riskin ve klinik tablonun daha kabul edilebilir olduğu durumlarda ise cerrahinin, doğum sonrasında yapılması biçimindedir. Hastada kanser tanısından dolayı aşırı anksyiete var ise bu durum sağlık ekibindeki uzmanlar arasında mutlaka değerlendirilmelidir. Literatürde yeterli veri bulunmayan medüller ve anaplastik kanserlerde ise cerrahi, tanıyı takiben uygulanmalıdır.

Radyoaktif iyot (RAI) ablasyon tedavisi de endike olduğu takdirde, doğum sonrası dönemde uygulanmalıdır.

KAYNAKLAR

1. Mazzaferri EL. Approach to the pregnant patient with thyroid cancer. J Clin Endocrinol Metab. 2011 Feb;96(2):265-72. doi: 10.1210/jc.2010-1624. PMID: 21296990.
2. Uruno T, Shibuya H, Kitagawa W, Nagahama M, Sugino K, Ito K. Optimal timing of surgery for differentiated thyroid cancer in pregnant women. World J Surg. 2014 Mar;38(3):704-8. doi: 10.1007/s00268-013-2334-9. PMID: 24248429.
3. Yasmeen S, Cress R, Romano PS, Xing G, Berger-Chen S, Danielsen B, Smith LH. Thyroid cancer in pregnancy. Int J Gynaecol Obstet. 2005 Oct;91(1):15-20. doi: 10.1016/j.ijgo.2005.06.022. PMID: 16085061.
4. Boucek J, de Haan J, Halaska MJ, Plzak J, Van Calsteren K, de Groot CJM, Dahl Steffensen K, Fruscio R, Massolt ET, Klaritsch P, Zola P, Amant F; International Network on Cancer, Infertility, and Pregnancy. Maternal and obstetrical outcome in 35 cases of well-differentiated thyroid carcinoma during pregnancy. Laryngoscope. 2018 Jun;128(6):1493-1500. doi: 10.1002/lary.26936. Epub 2017 Oct 8. PMID: 28988434.
5. Gibelli B, Zamperini P, Proh M, Giugliano G. Management and follow-up of thyroid cancer in pregnant women. Acta Otorhinolaryngol Ital. 2011 Dec;31(6):358-65. PMID: 22323846; PMCID: PMC3272870.
6. Andersen SL, Olsen J, Laurberg P. Maternal thyroid disease in the Danish National Birth Cohort: prevalence and risk factors. Eur J Endocrinol. 2016 Feb;174(2):203-12. doi: 10.1530/EJE-15-0816. Epub 2015 Nov 18. PMID: 26582484.
7. Smith LH, Danielsen B, Allen ME, Cress R. Cancer associated with obstetric delivery: results of linkage with the California cancer registry. Am J Obstet Gynecol. 2003 Oct;189(4):1128-35. doi: 10.1067/s0002-9378(03)00537-4. PMID: 14586366.
8. Wojtczak, Beata & Kaliszewski, Krzysztof & Binko, Michał & Sępek, Monika & Mulek, Rafał & Rudnicki, Jerzy & Bolanowski, Marek & Barczyński, Marcin. (2020). Thyroid oncology in pregnancy. Annals of Thyroid. 5. 14-14. 10.21037/aot-2020-rcmtt-02.
9. Chinelatto, Lucas & Hojaij, Flávio & De Carlucci Jr, Dorival & Cernea, Claudio. (2020). Thyroid cancer surgical indication during pregnancy: systematic literature review and series of illustrative cases. Archives of Head and Neck Surgery. 49. 10.4322/ahns.2020.0001.
10. De Groot L, Abalovich M, Alexander EK, Amino N, Barbour L, Cobin RH, Eastman CJ, Lazarus JH, Luton D, Mandel SJ, Mestman J, Rovet J, Sullivan S. Management of thyroid dysfunction during pregnancy and postpartum: an Endocrine Society clinical practice guideline. J Clin Endocrinol Metab. 2012 Aug;97(8):2543-65. doi: 10.1210/jc.2011-2803. PMID: 22869843.
11. Fiddes JC, Goodman HM. The gene encoding the common alpha subunit of the four human glycoprotein hormones. J Mol Appl Genet. 1981;1(1):3-18. PMID: 6286817.

12. Krassas GE, Poppe K, Glinoer D. Thyroid function and human reproductive health. Endocr Rev. 2010 Oct;31(5):702-55. doi: 10.1210/er.2009-0041. Epub 2010 Jun 23. PMID: 20573783.
13. Burrow GN, Fisher DA, Larsen PR. Maternal and fetal thyroid function. N Engl J Med. 1994 Oct 20;331(16):1072-8. doi: 10.1056/NEJM199410203311608. PMID: 8090169.
14. Anselmo J, Cao D, Karrison T, Weiss RE, Refetoff S. Fetal loss associated with excess thyroid hormone exposure. JAMA. 2004 Aug 11;292(6):691-5. doi: 10.1001/jama.292.6.691. PMID: 15304465.
15. Alexander EK, Pearce EN, Brent GA, Brown RS, Chen H, Dosiou C, Grobman WA, Laurberg P, Lazarus JH, Mandel SJ, Peeters RP, Sullivan S. 2017 Guidelines of the American Thyroid Association for the Diagnosis and Management of Thyroid Disease During Pregnancy and the Postpartum. Thyroid. 2017 Mar;27(3):315-389. doi: 10.1089/thy.2016.0457. Erratum in: Thyroid. 2017 Sep;27(9):1212. PMID: 28056690.
16. Khaled H, Al Lahloubi N, Rashad N. A review on thyroid cancer during pregnancy: Multitasking is required. J Adv Res. 2016 Jul;7(4):565-70. doi: 10.1016/j.jare.2016.02.007. Epub 2016 Mar 2. PMID: 27408758; PMCID: PMC4921779.
17. Sakoda LC, Horn-Ross PL. Reproductive and menstrual history and papillary thyroid cancer risk: the San Francisco Bay Area thyroid cancer study. Cancer Epidemiol Biomarkers Prev. 2002 Jan;11(1):51-7. PMID: 11815401.
18. Horn-Ross PL, Chang ET, Clarke CA, Keegan TH, Rull RP, Quach T, Gomez SL. Nativity and papillary thyroid cancer incidence rates among Hispanic women in California. Cancer. 2012 Jan 1;118(1):216-22. doi: 10.1002/cncr.26223. Epub 2011 Jun 20. PMID: 21692062; PMCID: PMC3179782.
19. Mack WJ, Preston-Martin S, Bernstein L, Qian D, Xiang M. Reproductive and hormonal risk factors for thyroid cancer in Los Angeles County females. Cancer Epidemiol Biomarkers Prev. 1999 Nov;8(11):991-7. PMID: 10566554.
20. Horn-Ross PL, Canchola AJ, Ma H, Reynolds P, Bernstein L. Hormonal factors and the risk of papillary thyroid cancer in the California Teachers Study cohort. Cancer Epidemiol Biomarkers Prev. 2011 Aug;20(8):1751-9. doi: 10.1158/1055-9965.EPI-11-0381. Epub 2011 Jul 26. PMID: 21791618; PMCID: PMC3288117.
21. Zhou YQ, Zhou Z, Qian MF, Gong T, Wang JD. Association of thyroid carcinoma with pregnancy: A meta-analysis. Mol Clin Oncol. 2015 Mar;3(2):341-346. doi: 10.3892/mco.2014.472. Epub 2014 Dec 2. PMID: 25798264; PMCID: PMC4360860.
22. Struve CW, Haupt S, Ohlen S. Influence of frequency of previous pregnancies on the prevalence of thyroid nodules in women without clinical evidence of thyroid disease. Thyroid. 1993 Spring;3(1):7-9. doi: 10.1089/thy.1993.3.7. PMID: 8499766.
23. Kung AW, Chau MT, Lao TT, Tam SC, Low LC. The effect of pregnancy on thyroid nodule formation. J Clin Endocrinol Metab. 2002 Mar;87(3):1010-4. doi: 10.1210/jcem.87.3.8285. PMID: 11889153.
24. Stagnaro-Green A, Abalovich M, Alexander E, Azizi F, Mestman J, Negro R, Nixon A, Pearce EN, Soldin OP, Sullivan S, Wiersinga W; American Thyroid Association Taskforce on Thyroid Disease During Pregnancy and Postpartum. Guidelines of the American Thyroid Association for the diagnosis and management of thyroid disease during pregnancy and postpartum. Thyroid. 2011 Oct;21(10):1081-125. doi: 10.1089/thy.2011.0087. Epub 2011 Jul 25. PMID: 21787128; PMCID: PMC3472679.
25. Papini E, Guglielmi R, Bianchini A, Crescenzi A, Taccogna S, Nardi F, Panunzi C, Rinaldi R, Toscano V, Pacella CM. Risk of malignancy in nonpalpable thyroid nodules: predictive value of ultrasound and color-Doppler features. J Clin Endocrinol Metab. 2002 May;87(5):1941-6. doi: 10.1210/jcem.87.5.8504. PMID: 11994321.
26. O'Connell TB, O'Doherty MJ. Differentiated thyroid cancer and pregnancy. Nucl Med Commun. 2000 Feb;21(2):127-8. doi: 10.1097/00006231-200002000-00001. PMID: 10758605.

27. Moosa M, Mazzaferri EL. Outcome of differentiated thyroid cancer diagnosed in pregnant women. J Clin Endocrinol Metab. 1997 Sep;82(9):2862-6. doi: 10.1210/jcem.82.9.4247. PMID: 9284711.
28. Rosen IB, Korman M, Walfish PG. Thyroid nodular disease in pregnancy: current diagnosis and management. Clin Obstet Gynecol. 1997 Mar;40(1):81-9. doi: 10.1097/00003081-199703000-00009. PMID: 9103951.
29. Nam KH, Yoon JH, Chang HS, Park CS. Optimal timing of surgery in well-differentiated thyroid carcinoma detected during pregnancy. J Surg Oncol. 2005 Sep 1;91(3):199-203. doi: 10.1002/jso.20327. PMID: 16118775.
30. Yasmeen S, Cress R, Romano PS, Xing G, Berger-Chen S, Danielsen B, Smith LH. Thyroid cancer in pregnancy. Int J Gynaecol Obstet. 2005 Oct;91(1):15-20. doi: 10.1016/j.ijgo.2005.06.022. PMID: 16085061.
31. Alves GV, Santin AP, Furlanetto TW. Prognosis of thyroid cancer related to pregnancy: a systematic review. J Thyroid Res. 2011;2011:691719. doi: 10.4061/2011/691719. Epub 2011 Jul 27. PMID: 21811666; PMCID: PMC3146994.
32. Galofré JC, Riesco-Eizaguirre G, Alvarez-Escolá C; Grupo de Trabajo de Cáncer de Tiroides de la Sociedad Española de Endocrinología y Nutrición. Clinical guidelines for management of thyroid nodule and cancer during pregnancy. Endocrinol Nutr. 2014 Mar;61(3):130-8. doi: 10.1016/j.endonu.2013.08.003. Epub 2013 Oct 28. PMID: 24176541.
33. Rosen IB, Korman M, Walfish PG. Thyroid nodular disease in pregnancy: current diagnosis and management. Clin Obstet Gynecol. 1997 Mar;40(1):81-9. doi: 10.1097/00003081-199703000-00009. PMID: 9103951.
34. Hamburger JI. Thyroid nodules in pregnancy. Thyroid. 1992 Summer;2(2):165-8. doi: 10.1089/thy.1992.2.165. PMID: 1525586.
35. Modesti C, Aceto P, Masini L, Lombardi CP, Bellantone R, Sollazzi L. Approach to thyroid carcinoma in pregnancy. Updates Surg. 2017 Jun;69(2):261-265. doi: 10.1007/s13304-017-0476-2. Epub 2017 Jun 22. PMID: 28639240.
36. Kuy S, Roman SA, Desai R, Sosa JA. Outcomes following thyroid and parathyroid surgery in pregnant women. Arch Surg. 2009 May;144(5):399-406; discussion 406. doi: 10.1001/archsurg.2009.48. Erratum in: Arch Surg. 2009 Aug;144(8):779. PMID: 19451480.
37. Herzon FS, Morris DM, Segal MN, Rauch G, Parnell T. Coexistent thyroid cancer and pregnancy. Arch Otolaryngol Head Neck Surg. 1994 Nov;120(11):1191-3. doi: 10.1001/archotol.1994.01880350009002. PMID: 7917201.
38. Sullivan SA. Thyroid Nodules and Thyroid Cancer in Pregnancy. Clin Obstet Gynecol. 2019 Jun;62(2):365-372. doi: 10.1097/GRF.0000000000000431. PMID: 30925552.
39. Messuti I, Corvisieri S, Bardesono F, Rapa I, Giorcelli J, Pellerito R, Volante M, Orlandi F. Impact of pregnancy on prognosis of differentiated thyroid cancer: clinical and molecular features. Eur J Endocrinol. 2014 Apr 10;170(5):659-66. doi: 10.1530/EJE-13-0903. PMID: 24510913.
40. Imran SA, Rajaraman M. Management of differentiated thyroid cancer in pregnancy. J Thyroid Res. 2011;2011:549609. doi: 10.4061/2011/549609. Epub 2011 May 25. PMID: 21687597; PMCID: PMC3112517.
41. Rosário PW, Barroso AL, Purisch S. The effect of subsequent pregnancy on patients with thyroid carcinoma apparently free of the disease. Thyroid. 2007 Nov;17(11):1175-6. doi: 10.1089/thy.2007.0242. PMID: 18047435.
42. Bal C, Kumar A, Tripathi M, Chandrashekar N, Phom H, Murali NR, Chandra P, Pant GS. High-dose radioiodine treatment for differentiated thyroid carcinoma is not associated with change in female fertility or any genetic risk to the offspring. Int J Radiat Oncol Biol Phys. 2005 Oct 1;63(2):449-55. doi: 10.1016/j.ijrobp.2005.02.043. PMID: 16095849.
43. Hirsch D, Levy S, Tsvetov G, Weinstein R, Lifshitz A, Singer J, Shraga-Slutzky I, Grozinski-Glasberg S, Shimon I, Benbassat C. Impact of pregnancy on outcome and prognosis of

survivors of papillary thyroid cancer. Thyroid. 2010 Oct;20(10):1179-85. doi: 10.1089/thy.2010.0081. PMID: 20860423.
44. Rakhlin L, Fish S, Tuttle RM. Response to Therapy Status Is an Excellent Predictor of Pregnancy-Associated Structural Disease Progression in Patients Previously Treated for Differentiated Thyroid Cancer. Thyroid. 2017 Mar;27(3):396-401. doi: 10.1089/thy.2016.0501. Epub 2017 Jan 19. PMID: 27835925; PMCID: PMC5912718.
45. Spiegel E, Spence AR, Czuzoj-Shulman N, Abenhaim HA. Pregnancy outcomes after thyroid cancer. J Perinat Med. 2019 Sep 25;47(7):710-716. doi: 10.1515/jpm-2019-0039. PMID: 31323010.