

Bölüm 2.4

PROSTAT BİYOPSİSİ

Emin Taha KESKİN¹

GİRİŞ

Prostat bezi, anatomik olarak mesane boynu ile ürogenital diyafram arasında, rektumun hemen önünde yer almaktadır. Prostat bezinin iç yapısı geleneksel olarak kendine özgü bir zonal anatomiye sahiptir. Bu zonal anatomi; transizyonel zon (TZ), santral zon (CZ), glandüler dokudan yoksun olan anterior fibromusküler stroma ve periferal zondan oluşmaktadır (PZ). Erkek ürogenital sisteminin bir parçası olan bu bezden köken alan prostat kanseri dünya genelinde 1.414.259 vaka insidansı ve tüm kanserlerin %7,3'ünü oluşturmaktır ve erkeklerde saptanan en yaygın cilt dışı malignitedir. Prostat kanseri transizyonel zonda %10, santral zonda ise %5 oranında saptansa da bir adenokanser türü olduğu için prostat kanseri özellikle prostatın %70ini oluşturan ve glandüler hücrelerden zengin olan periferal zondan gelişmektedir[1].

Prostat kanserinin tanısı prostat biyopsi ile konulmaktadır. 20. yüzyılın başlarından beri kullanılan prostat biyopsisi; prostat bezinden doku örneklerin çeşitli yöntemler ile alındığı minimal invaziv bir prosedürdür. Prostat biyopsisi 1980'lerin sonlarına kadar parmak yardımıyla alınmaktaydı. Ancak transrektal ultrasonun (TRUS) klinik kullanımının artmasıyla günümüzde prostat görüntülemesinin ve özellikle biyopsinin rutin bir parçası haline gelmiştir. Ultrason kılavuzlığında ilk transrektal sistematik biyopsi 1989 yılında Hogde tarafından 6 kor (sextant) olarak tanımlandı. 90'lı yılların başında PSA'nın prostat kanseri tarama testi olarak FDA tarafından onaylanması sonrasında prostat biyopsisi ve

¹ Uzm. Dr., Başakşehir Çam ve Sakura Şehir Hastanesi, Üroloji Kliniği emintaha90@hotmail.com

KAYNAKLAR

1. Trabulsi EJ, Liu XS, Das AK. Transrectal ultrasound of the prostate. Practical urological ultrasound: Springer; 2013. p. 155-170.
2. Bhanji Y, Allaway MJ, Gorin MA. Recent advances and current role of transperineal prostate biopsy. *Urologic Clinics*. 2021;48(1):25-33.
3. Bancroft EK, Page EC, Castro E, et al. Targeted prostate cancer screening in BRCA1 and BRCA2 mutation carriers: results from the initial screening round of the IMPACT study. *European urology*. 2014;66(3):489-499.
4. Heidenreich A, Bastian PJ, Bellmunt J, et al. EAU guidelines on prostate cancer. Part 1: screening, diagnosis, and local treatment with curative intent—update 2013. *European urology*. 2014;65(1):124-137.
5. Farrell C, Noyes SL, Joslin J, et al. Prostate multiparametric magnetic resonance imaging program implementation and impact: initial clinical experience in a community based health system. *Urology practice*. 2018;5(3):165-171.
6. Guo CC, Epstein JI. Intraductal carcinoma of the prostate on needle biopsy: histologic features and clinical significance. *Modern pathology*. 2006;19(12):1528-1535.
7. Ericson KJ, Wenger HC, Rosen AM, et al. Prostate cancer detection following diagnosis of atypical small acinar proliferation. *The Canadian journal of urology*. 2017;24(2):8714-8720.
8. Culkin DJ, Exaire EJ, Green D, et al. Anticoagulation and Antiplatelet Therapy in Urologic Practice: ICUD and AUA Review Paper, 2014. 2015.
9. Lindstedt S, Lindström U, Ljunggren E, et al. Single-dose antibiotic prophylaxis in core prostate biopsy: Impact of timing and identification of risk factors. *European urology*. 2006;50(4):832-837.
10. Zani EL, Clark OAC, Netto Jr NR. Antibiotic prophylaxis for transrectal prostate biopsy. *Cochrane database of systematic reviews*. 2011 (5).
11. Karakonstantis S, Kalemaki D. A significant percentage of patients with transrectal biopsy-related infections have positive blood cultures but negative urine cultures. A literature review and meta-analysis. *Infectious Diseases*. 2018;50(11-12):791-803.
12. Sabbagh R, McCormack M, Peloquin F, et al. A prospective randomized trial of 1-day versus 3-day antibiotic prophylaxis for transrectal ultrasound guided prostate biopsy. *The Canadian journal of urology*. 2004;11(2):2216-2219.
13. Pradere B, Veeratterapillay R, Dimitropoulos K, et al. Nonantibiotic strategies for the prevention of infectious complications following prostate biopsy: a systematic review and meta-analysis. *The Journal of urology*. 2021;205(3):653-663.
14. Stefanova V, Buckley R, Flax S, et al. Transperineal prostate biopsies using local anesthesia: experience with 1,287 patients. Prostate cancer detection rate, complications and patient tolerability. *The Journal of urology*. 2019;201(6):1121-1126.
15. Pepdjonovic L, Tan GH, Huang S, et al. Zero hospital admissions for infection after 577 transperineal prostate biopsies using single-dose cephazolin prophylaxis. *World journal of urology*. 2017;35(8):1199-1203.
16. Taylor AK, Zembower TR, Nadler RB, et al. Targeted antimicrobial prophylaxis using rectal swab cultures in men undergoing transrectal ultrasound guided prostate biopsy is associated with reduced incidence of postoperative infectious complications and cost of care. *The Journal of urology*. 2012;187(4):1275-1279.
17. Mottet N, van den Berg RC, Briers E, et al. EAU-EANM-ESTRO-ESUR-SIOG guidelines on prostate cancer—2020 update. Part 1: screening, diagnosis, and local treatment with curative intent. *European urology*. 2021;79(2):243-262.
18. Iremashvili VV, Chepurov AK, Kobaldadze KM, et al. Periprostatic local anesthesia with pudendal block for transperineal ultrasound-guided prostate biopsy: a randomized trial. *Urology*. 2010;75(5):1023-1027.

19. Shariat SF, Roehrborn CG. Using biopsy to detect prostate cancer. *Reviews in Urology*. 2008;10(4):262.
20. Garcia C, Winter M, Bergersen P, et al. S&T-50 DOES TRANSPERINEAL PROSTATE BIOPSY REDUCE COMPLICATIONS COMPARED WITH TRANSRECTAL BIOPSY? A SYSTEMATIC REVIEW AND META-ANALYSIS OF RANDOMISED CONTROLLED TRIALS. *The Journal of Urology*. 2016;195(4S):e328-e329.
21. Volkin D, Turkbey B, Hoang AN, et al. Multiparametric magnetic resonance imaging (MRI) and subsequent MRI/ultrasonography fusion-guided biopsy increase the detection of anteriorly located prostate cancers. *BJU international*. 2014;114(6b):E43-E49.
22. Symons JL, Huo A, Yuen CL, et al. Outcomes of transperineal template-guided prostate biopsy in 409 patients. *BJU international*. 2013;112(5):585-593.
23. Kum F, Elhage O, Maliyil J, et al. Initial outcomes of local anaesthetic freehand transperineal prostate biopsies in the outpatient setting. *BJU international*. 2020;125(2):244-252.
24. Wegelin O, Exterkate L, van der Leest M, et al. The FUTURE trial: a multicenter randomised controlled trial on target biopsy techniques based on magnetic resonance imaging in the diagnosis of prostate cancer in patients with prior negative biopsies. *European urology*. 2019;75(4):582-590.