

# 5.

## Bölüm

# PLEVRA HASTALIKLARININ TANISINDA İNVAZİF YÖNTEMLER

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### OLGU

43 yaşında erkek hasta, öksürük ve nefes darlığı şikayeti ile ayaktan polikliniğimize başvurdu. İki haftadır başlayan şikayetleri için başvurduğu bir dış merkezden posteroanterior (PA) akciğer grafisi çekilerek hastanemize yönlendirilmişti.

Öz ve soygeçmişinde bir özellik yoktu. Alışkanlıkları arasında 19 paket/yıl sigara öyküsü vardı ve 5 yıldır ex-smokerdi. Alkol öyküsü ya da hobisi yoktu, kaynak atölyesinde çalışıyordu.

Fizik muayenesinde; dinlemekle sağ akciğerde alt ve orta alanlarda solunum sesleri alınamıyordu ve matite mevcuttu. Pretibial ödem ve clubbing yoktu. Oda havasında oksijen saturasyonu %96 idi.

### Tanı aşamaları:

Kan tetkikleri içerisinde alınan tam kan sayımında WBC: 8.05 10 e3/uL, Hct: %38(37-54), Hgb:14.5 g/dL (11-16), Plt: 261 10e3 /uL (150-450) saptandı.

Sedimentasyon hızı, 46 mm/saat, INR: 0.9 idi.

Biyokimya testlerinde ALT: 24 u/L (<50), AST: 25 u/L (<50), üre: 21 mg/L, kreatinin: 0.8 mg/L idi ve seroloji testleri negatif saptandı. PPD testi 16x15 mm olarak ölçüldü.

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## KAYNAKLAR

- 1-Maldonado F, Lentz RJ, Light RW. Diagnostic approach to pleural diseases: new tricks for an old trade. Version 1. F1000Res. 2017; 6: 1135. doi: 10.12688/f1000research.11646.1.
- 2-Walcott-Sapp, S: A history of thoracic drainage: From ancient Greeks to wound sucking drummers to digital monitoring, 2018. <https://www.ctsnet.org/article/history-thoracic-drainage-ancient-greeks-wound-sucking-drummers-digital-monitoring>.
- 3-Schildhouse R, Lai A, Barsuk JH, et al. Safe and effective bedside thoracentesis: A Review of the Evidence for Practicing Clinicians. *J Hosp Med.* 2017; 12(4):266-276. doi: 10.12788/jhm.2716.
- 4-El-Sheikh HE, Essawy TS, Khater HM, et al. Role of chest ultrasound in detection of the cause of pleural effusion and guidance for thoracentesis. *Benha Journal of Applied Sciences,* 2020; 5(8(1)): 1-5. doi: 10.21608/bjas.2020.137607.
- 5-Sahn SA, Huggins JT, San Jose E, et al. The art of pleural fluid analysis. *Clin Pulm Med.* 2013; 20:77. doi: 10.1097/CPM.0b013e318285ba37.
- 6-Berg D, Berg K, Lee Ann Riesenber LA, et al. The development of a validated checklist for thoracentesis: preliminary results. *Am J Med Qual.* 2013; 28(3): 220-6. doi: 10.1177/1062860612459881.
- 7-Arnold DT, De Fonseka D, Perry S, et al. Investigating unilateral pleural effusions: the role of cytology. *Eur Respir J.* 2018; 52(5):1801254. doi: 10.1183/13993003.01254-2018.
- 8-Grosu HB, Kazzaz F, Vakil E, et al. Sensitivity of initial thoracentesis for malignant pleural effusion stratified by tumor type in patients with strong evidence of metastatic disease. *Respiration.* 2018; 96(4):363-369. doi: 10.1159/000490732.
- 9-Segaline N, Wang J, Bethancourt B, et al. The role of ultrasound-guided therapeutic thoracentesis in an outpatient transitional care program: A case series. *Am J Hosp Palliat Care.* 2019; 36(10):927-931. doi: 10.1177/1049909119837517.
- 10-Garbuzenko DV, Arefyev NO. Hepatic hydrothorax: An update and review of the literature. *World J Hepatol.* 2017; 9(31): 1197-1204. doi: 10.4254/wjh.v9.i31.1197.
- 11-Krenke R, Grabczak EM. Pleural manometry and thoracentesis-is the issue resolved? *Lancet Respir Med.* 2019; 7(5):374-376. doi: 10.1016/S2213-2600(19)30033-5.
- 12-Cantey EP, Walter JM, Corbridge T, et al. Complications of thoracentesis: incidence, risk factors, and strategies for prevention. *Curr Opin Pulm Med.* 2016; 22(4):378-85. doi: 10.1097/MCP.0000000000000285.
- 13-Lima DRR, Yepes AF, Jiménez CIB, et al. Real-time ultrasound-guided thoracentesis in the intensive care unit: prevalence of mechanical complications. *Ultrasound J.* 2020; 12(1):25. doi: 10.1186/s13089-020-00172-9.
- 14-Cardenas-Garcia J, Huggins JT. (2019). Lung and Pleural Procedures. In Soni NJ, Arntfield R, Kory P. (Ed). *Point-of-Care Ultrasound* (2nd ed., pp 84-93). Philadelphia. Elsevier Health Sciences.
- 15-Singh K, Balthazar P 2, Duszak Jr R, et al. Clinical yield of routine chest radiography after ultrasound-guided thoracentesis. *Acad Radiol.* 2020; 27(10):1379-1384. doi: 10.1016/j.acra.2019.10.031.
- 16-Lenaus MJ, Shepherd A, White AA. Routine chest radiographs after uncomplicated thoracentesis. *J. Hosp. Med.* 2018;13(11):787-789. doi:10.12788/jhm.3042.
- 17-Cavanna L, Mordenti P, Bertè R, et al. Ultrasound guidance reduces pneumothorax rate and improves safety of thoracentesis in malignant pleural effusion: report on 445 consecutive patients with advanced cancer. *World J Surg Oncol.* 2014; 12:139. doi: 10.1186/1477-7819-12-139.
- 18-Kamio T, Iizuka Y, Koyama H, et al. Adverse events related to thoracentesis and chest tube insertion: evaluation of the national collection of subject safety incidents in Japan. *Eur J Trauma Emerg Surg.* 2021; doi.org/10.1007/s00068-020-01575-y.

19. 19-Fawad M, Ullah R, Khan AA, et al. Frequency of pneumothorax in patients undergoing large volume thoracentesis. *Pak J Chest Med* 2020; 26 (3):128-132.
20. 20-Hira HS, Ranjan R. Role of percutaneous closed needle pleural biopsy among patients of undiagnosed exudative pleural effusion. *Lung India*. 2011; 28(2): 101–104. doi: 10.4103/0970-2113.80319.
21. 21-Rajawat GS, Batra S, Takhar RP, et al. Diagnostic yield and safety of closed needle pleural biopsy in exudative pleural effusion. *Avicenna J Med*. 2017; 7(3):121-124. doi: 10.4103/ajm.AJM\_112\_16.
22. 22-Lin Z, Wu D, Wang J, et al. Diagnostic value of ultrasound-guided needle biopsy in undiagnosed pleural effusions A systematic review and meta-analysis. *Medicine (Baltimore)*. 2020; 99(27): e21076. doi: 10.1097/MD.00000000000021076.
23. 23-Arslan Z, Cetinkaya E. Kapalı plevra bülteni. *TTD Plevra Bülteni*. 2008;2(2):38-45.
24. 24-Saha K, Maji A, Bandyopadhyay A, et al. Diagnostic yield of closed pleural biopsy in undiagnosed exudative pleural effusions. *Maedica J Clin Med*. 2021; 16(1): 34-40.
25. 25-Zhang, T, Wan B, Wang L, et al. The diagnostic yield of closed needle pleural biopsy in exudative pleural effusion: a retrospective 10-year study. *Ann Transl Med*. 2020; 8(7): 491. doi: 10.21037/atm.2020.03.47.
26. 26-Metintas M, Yildirim H, Kaya T, et al. CT-scan-guided Abrams' needle pleural biopsy versus ultrasound-assisted cutting needle pleural biopsy for diagnosis in patients with pleural effusion: A randomized, controlled trial. *Respiration*. 2016; 91(2):156-63. doi: 10.1159/000443483.
27. 27-Ozgul MA, Cetinkaya E, Tanrıverdi, et al. Diagnostic value and safety of medical thoracoscopy in the management of exudative pleural effusion. *Eurasian J Pulmonol* 2016; 18: 139-42.
28. 28-Lee P, Folch E. Thoracoscopy: Advances and increasing role for interventional pulmonologists. *Semin Respir Crit Care Med*. 2018; 39(6):693-703. doi: 10.1055/s-0038-1676978.
29. 29-Marchetti GP, Pinelli V, Tassi GF. 100 years of thoracoscopy: Historical notes. *Respiration* 2011; 82:187-192. doi: 10.1159/000326066.
30. 30-Jin F, Wang H, Li Q, et al. Expert consensus for diagnosis and treatment using medical thoracoscopy in China. *J Thorac Dis* 2020;12(5):1799-1810. doi.org/10.21037/jtd-19-2276.
31. 31-Yokoyama T, Toda R, Tomioka R, et al. Medical thoracoscopy performed using a flexible bronchoscope inserted through a chest tube under local anesthesia. *Diagn Ther Endosc*. 2009; 394817. doi: 10.1155/2009/394817.
32. 32-Murthy V, Bessich JL. Medical thoracoscopy and its evolving role in the diagnosis and treatment of pleural disease. *J Thorac Dis*. 2017; 9(10): 1011-1021. doi: 10.21037/jtd.2017.06.37.
33. 33-Wan YY, Zhai CC, Xin-Shan Lin XS, et al. Safety and complications of medical thoracoscopy in the management of pleural diseases. *BMC Pulm Med*. 2019; 19: 125. doi: 10.1186/s12890-019-0888-5.
34. 34-Shiroshita A, Kurosaki M, Takeshita M, et al. Medical thoracoscopy, computed tomography-guided biopsy, and ultrasound-guided biopsy for malignant pleural mesothelioma: A systematic review. *Anticancer Res*. 2021; 41 (5): 2217-2225. doi: 10.21873/anticancer.14998.
35. 35-Puchalski J. Advances and controversies in thoracentesis and medical thoracoscopy. *Semin Respir Crit Care Med*. 2019; 40(3):410-416. doi: 10.1055/s-0039-1694034.
36. 36-Kim SJ, Choi SM, Jinwoo Lee J, et al. Medical thoracoscopy in pleural disease: Experience from a one-center study. *Tuberc Respir Dis (Seoul)*. 2017; 80(2): 194–200. doi: 10.4046/trd.2017.80.2.194.