



HEMOPTİZİDE GÖĞÜS HASTALIKLARI YAKLAŞIMI

Ali ÇETİNKAYA¹

Mehmet Emin SEZGİN²

Cengiz ÖZDEMİR³

Hemoptizi acil servis başvurularının nadir olmayan bir nedenidir. Balgamla karışık minimal kanamadan masif hemoptiziye geniş bir spektrumda görülebilir. Özellikle kanser hastalarında hafif kanamalar başlangıç bulgusu olabilir ve masif kanamalar için uyarıcı bir durum olarak değerlendirilebilir. Akut bronşitten kansere kadar birçok neden olmakla beraber kanama miktarı ile altta yatan etyolojik neden arasında ilişki olmayabilir. Az miktarda kanamanın hastanın kardiyopulmoner rezervine bağlı olarak hemodinamiyi bozabileceği ve aynı zamanda altta yatan akciğer patolojileriyle birlikte asfiksinin kolaylaşabileceği akılda tutulmalıdır. Malign bir sebep olmasa bile zamanında müdahale edilemediğinde mortalitesi yüksek olabilir. Bu nedenle uygun müdahalelerin hızla planlanıp uygulanması gereklidir.

Tanım:

Hemoptizi alt solunum yolları veya akciğer parankim dokusundan kaynaklanan kanamaların ağızdan ekspektorasyonu olarak tanımlanır. Hastaları sınıflandırma için genelde kanama miktarına göre masif ve masif olmayan hemoptizi şeklinde ayrılır. Ancak bunun için uzlaşmış bir ölçüm yoktur. Birçok kaynak araştırıldığında saatlik veya günlük 100-1000 ml arasında değişen miktarlarda olan kanamalar masif hemoptizi olarak belirlenmiştir (1-4). Burada ortak bir tanım olmaması durumu zorlaştırdığı gibi ayrıca hastanın da kanama miktarını tarif etmesindeki güçlük kategorizasyonda sorunlara neden olmaktadır. Klinik pratikte hastaların kanama miktarını mililitre (ml) olarak tarif etmesinden

1 Uzm. Dr. Ali ÇETİNKAYA, Gaziantep Dr. Ersin Arslan EAH, dralicetinkaya02@gmail.com

2 Uzm. Dr. Mehmet Emin SEZGİN, Siirt Eğitim ve Araştırma Hastanesi, mesezginn8.mes@gmail.com

3 Doç. Dr. Cengiz ÖZDEMİR, Sağlık Bilimleri Üniversitesi Yedikule Göğüs Hastalıkları ve Göğüs Cerrahisi EAH, cengizoz78@yahoo.com

cerrahiler azalmakta ve elektif yaklaşımları daha güvenli ve başarılı sonuçlar doğurmuştur.

KAYNAKLAR

1. Wolfe JD, Simmons DH, Angeles L. Medical Progress Hemoptysis : Diagnosis and Management. *Tuberculosis*. 1977;383–90.
2. Davidson K, Shojaee S. Managing Massive Hemoptysis. *Chest*. 2020;157(1):77–88.
3. Radchenko C, Alraiyes AH, Shojaee S. A systematic approach to the management of massive hemoptysis. *J Thorac Dis*. 2017;9(5):S1069–86.
4. Kathuria H, Hollingsworth HM, Vilvendhan R, Reardon C. Management of life-threatening hemoptysis. 2020;1–9.
5. Ittrich H, Bockhorn M, Klose H, Simon M. The diagnosis and treatment of hemoptysis. *Dtsch Arztebl Int*. 2017;114(21):371–81.
6. Almeida J, Leal C, Figueiredo L. Evaluation of the bronchial arteries: normal findings, hypertrophy and embolization in patients with hemoptysis. *Insights Imaging*. 2020;11(1).
7. Jean-Baptiste E. Clinical assessment and management of massive hemoptysis [9]. *Crit Care Med*. 2001;29(5):1098.
8. Khalil A, Parrot A, Nedelcu C, Fartoukh M, Marsault C, Carette MF. Severe hemoptysis of pulmonary arterial origin: Signs and role of multidetector row CT angiography. *Chest [Internet]*. 2008;133(1):212–9. Available from: <http://dx.doi.org/10.1378/chest.07-1159>
9. Observational , multicentre study on the epidemiology of haemoptysis. 2018;10–3.
10. Dweik RA, Stoller JK. ROLE OF BRONCHOSCOPY IN MASSIVE HEMOPTYSIS. 1999;20(1).
11. Kvale PA, Selecky PA, Prakash UBS. Palliative care in lung cancer: ACCP evidence-based clinical practice guidelines (2nd edition). *Chest [Internet]*. 2007;132(3 SUPPL.):368S–403S. Available from: <http://dx.doi.org/10.1378/chest.07-1391>
12. Crocco JA, Rooney JJ, Fankushen DS, Dibenedetto RJ, Lyons HA. MASSIVE HEMOPTYSIS. 2015;
13. Garzon AA, Gourin A. Surgical management of massive hemoptysis. *Ann Surg*. 1978;187(3):267–71.
14. Hirshberg B, Biran I, Glazer M, Kramer MR. Hemoptysis: Etiology, evaluation, and outcome in a tertiary referral hospital. *Chest [Internet]*. 1997;112(2):440–4. Available from: <http://dx.doi.org/10.1378/chest.112.2.440>
15. Sakr L, Dutau H. Massive hemoptysis: An update on the role of bronchoscopy in diagnosis and management. *Respiration*. 2010;80(1):38–58.
16. Shigemura N, Wan IY, Yu SCH, Wong RH, Hsin MKY, Thung HK, et al. ORIGINAL ARTICLES : GENERAL THORACIC GENERAL THORACIC SURGERY : Multidisciplinary Management of Life-Threatening Massive Hemoptysis : A 10-Year Experience. *ATS [Internet]*. 2009;87(3):849–53. Available from: <http://dx.doi.org/10.1016/j.athoracsur.2008.11.010>
17. Gagnon S, Quigley N, Dutau H, Delage A, Fortin M. Approach to Hemoptysis in the Modern Era. *Can Respir J*. 2017;2017.
18. Abdulmalak C, Cottenet J, Beltramo G, Georges M, Camus P, Bonniaud P, et al. Haemoptysis in adults: A 5-year study using the French nationwide hospital administ-

- rative database. *Eur Respir J* [Internet]. 2015;46(2):503–11. Available from: <http://dx.doi.org/10.1183/09031936.00218214>
19. Nielsen K, Gottlieb M, Colella S, Saghir Z, Larsen KR, Clementsen PF. Bronchoscopy as a supplement to computed tomography in patients with haemoptysis may be unnecessary. *Eur Clin Respir J*. 2016;3(1):31802.
 20. Vanni S, Bianchi S, Bigiarini S, Casula C, Brogi M, Orsi S, et al. Management of patients presenting with haemoptysis to a Tertiary Care Italian Emergency Department: the Florence Haemoptysis Score (FLHASc). *Intern Emerg Med*. 2018;13(3):397–404.
 21. Seon HJ, Kim YH, Kwon YS. Localization of bleeding sites in patients with hemoptysis based on their chest computed tomography findings: A retrospective cohort study. *BMC Pulm Med* [Internet]. 2016;16(1):1–6. Available from: <http://dx.doi.org/10.1186/s12890-016-0322-1>
 22. Davoodi M, Kordi M, Gharibvand MM ome., Shoushtari MH addadzade., Borsi H, Bahadoram M. Hemoptysis: comparison of diagnostic accuracy of multi detector CT scan and bronchoscopy. *Glob J Health Sci*. 2015;7(3):373–7.
 23. Singh SK, Tiwari KK. Etiology of hemoptysis: A retrospective study from a tertiary care hospital from northern Madhya Pradesh, India. *Indian J Tuberc* [Internet]. 2016;63(1):44–7. Available from: <http://dx.doi.org/10.1016/j.ijtb.2016.02.007>
 24. Fidan A, özdoğan S, Oruç, Salepçi B, Öcal Z, Çağlayan B. Hemoptysis: A retrospective analysis of 108 cases. *Respir Med*. 2002;96(9):677–80.
 25. Ünsal E, Köksal D, Çimen F, Hoca NT, Şipit T. Analysis of patients with hemoptysis in a reference hospital for chest diseases. *54(1):34–42*.
 26. Yılmaz A. Masif Hemoptizi. :201–11.
 27. Ferris E, D M. Pulmonary Hemorrhage. 1981;710–4.
 28. Marshall TJ, Jackson JE. Interventional radiology Review article Vascular intervention in the thorax : bronchial artery embolization for haemoptysis. 1997;1227:1221–7.
 29. Circulation TB. States of Art. (1):463–81.
 30. Francisco S. Angiogenesis and Remodeling of Airway Vasculature in. 2001;164:39–45.
 31. Ferris E, D M. Pulmonary Hemorrhage. *Chest* [Internet]. 1981;80(6):710–4. Available from: <http://dx.doi.org/10.1378/chest.80.6.710>
 32. Revel MP, Fournier LS, Hennebicque AS, Cuenod CA, Meyer G, Reynaud P, et al. Can CT replace bronchoscopy in the detection of the site and cause of bleeding in patients with large or massive hemoptysis? *Am J Roentgenol*. 2002;179(5):1217–24.
 33. Earwood JS, Eisenhower DD, Medical A, Gordon F, Thompson TD, Clinic M, et al. Hemoptysis: Evaluation and Management. 2015;
 34. Hetzel MR. The role of computed tomography (CT) in the investigation of unexplained haemoptysis. 1992;39–44.
 35. Centre AA, Hospital A. Haemoptysis : aetiology , evaluation and outcome — a prospective study in a third-world country. 2001;548–52.
 36. Larici AR, Franchi P, Occhipinti M, Contegiacomo A, del Ciello A, Calandriello L, et al. Diagnosis and management of hemoptysis. *Diagnostic Interv Radiol*. 2014;20(4):299–309.
 37. Hsiao EI, Kirsch CM, Kagawa FT, Wehner JH, Jensen WA, Baxter RB. Utility of fiberoptic bronchoscopy before bronchial artery embolization for massive hemoptysis. *Am J Roentgenol*. 2001;177(4):861–7.
 38. Breuer HM, Charchut S, Worth H, Trampisch HJ, Glanzer K. Endobronchial versus intravenous application of the vasopressin derivative glypressin during diagnostic

- bronchoscopy. 1989;225–8.
39. Zavala DC. Pulmonary Hemorrhage in Fiberoptic Transbronchial Biopsy *. Chest [Internet]. 1976;70(5):584–8. Available from: <http://dx.doi.org/10.1378/chest.70.5.584>
 40. Pulmonology I. Hemodynamic Effects of Endobronchial Application of Ornipressin versus. 2004;397–401.
 41. Acids AA. Antifibrinolytic amino acids. 1998;245–53.
 42. Chang A, Ditchfield M, Robinson PJ, Robertson CF. Major Hemoptysis in a Child With Cystic Fibrosis From Multiple Aberrant Bronchial Arteries Treated With Tranexamic Acid. 1996;420:416–20.
 43. Graff GR. Treatment of Recurrent Severe Hemoptysis in Cystic Fibrosis with Tranexamic Acid. 2001;65212:91–4.
 44. Moen CA, Burrell A, Dunning J. Does tranexamic acid stop haemoptysis? Interact Cardiovasc Thorac Surg. 2013;17(6):991–4.
 45. Bense L. Intrabronchial selective Coagulative Treatment of. 1990;(Fig 2).
 46. Tsukamoto T, Sasaki H, Nakamura H. Treatment of Hemoptysis Patients by Thrombin and Fibrinogen-Thrombin Infusion Therapy Using a Fiberoptic Bronchoscope *. Chest [Internet]. 1989;96(3):473–6. Available from: <http://dx.doi.org/10.1378/chest.96.3.473>
 47. Alvarez A, Gracia J De, Rosa D De, Catal E, Bravo C. Use of endoscopic fibrinogen – thrombin in the treatment of severe hemoptysis. 2003;6111:790–5.
 48. Bhattacharyya P, Dutta A, Samanta AN, Chowdhury SR. New Procedure : Bronchoscopic Endobronchial Sealing *. 2017;
 49. George FR. Tamponade Unique Solitary Small Cell Lung Need for Histologic Examination. Chest [Internet]. 2004;127(6):1888–9. Available from: <http://dx.doi.org/10.1378/chest.127.6.1888>
 50. Valipour A, Kreuzer A, Koller H. Bronchoscopy-Guided Topical Hemostatic Tamponade Therapy for the Management of Life-Threatening Hemoptysis *. Chest [Internet]. 2005;127(6):2113–8. Available from: <http://dx.doi.org/10.1378/chest.127.6.2113>
 51. Dutau H, Palot A, Decamps I. Endobronchial Embolization with a Silicone Spigot as a Temporary Treatment for Massive Hemoptysis A New Bronchoscopic Approach of the Disease. 2006;830–2.
 52. Oda N, Sakugawa M, Hosokawa S. Successful Long-term Management of Two Cases of Moderate Hemoptysis Due to Chronic Cavitory Pulmonary Aspergillosis with Bronchial Occlusion Using Silicone Spigots. 2018;2389–93.
 53. Sakaguchi T, Kida H, Kanno Y, Oyama B, Inoue T. Bronchial Occlusion with Endobronchial Watanabe Spigot for Hemoptysis in a Mechanically Ventilated Patient with Extracorporeal Circulation. 2019;267–9.
 54. Zeng J, Wu X, Zhang M, Lin L, Ke M. Modified silicone stent for difficult-to-treat massive hemoptysis: A pilot study of 14 cases. J Thorac Dis. 2020;12(3):956–65.
 55. Dalar L, Özdemir C, Sökücü S, Karasulu L, J SA. Case Report The Management of Near-Fatal Hemoptysis with Left Secondary Carinal Y Stent. 2014;2014.
 56. Chung IH, Park M. Endobronchial Stent Insertion to Manage Hemoptysis caused by Lung Cancer. 2010;1253–5.
 57. Cancer L. Occlusive Endobronchial Stent Placement as a Novel Management Approach to Massive Hemoptysis from. J Thorac Oncol [Internet]. 2008;3(9):1071–2. Available from: <http://dx.doi.org/10.1097/JTO.0b013e318183af75>
 58. Koegelenberg CFN, Bruwer JW, Bolliger CT. Novel Insights from Clinical Practice

- Endobronchial Valves in the Management of Recurrent Haemoptysis. 2014;84–8.
59. Gershman E, Guthrie R, Swiatek K, Shojaee S. Management of hemoptysis in patients with lung cancer. 2019;7(10):1–12.
 60. Morice RC, Ece T, Ece F. Endobronchial Argon Plasma Coagulation for Treatment of Hemoptysis and Neoplastic Airway Obstruction *. Chest [Internet]. 2001;119(3):781–7. Available from: <http://dx.doi.org/10.1378/chest.119.3.781>
 61. Agmy GM, Wafy SM, Mohamed SAA, Gad YA, Mustafa H, El-aziz AEA. Bronchial and Nonbronchial Systemic Artery Embolization in Management of Hemoptysis : Experience with 348 Patients. 2013;2013.
 62. Flood R, Karthik S, Mirsadraee S, Clifton I, Flood K, McPherson SJ. Bronchial Artery Embolisation for Massive Haemoptysis: Immediate and Long-Term Outcomes—A Retrospective Study. Pulm Ther [Internet]. 2020;6(1):107–17. Available from: <https://doi.org/10.1007/s41030-020-00112-x>
 63. Panda A, Bhalla AS, Goyal A. Bronchial artery embolization in hemoptysis: A systematic review. Diagnostic Interv Radiol. 2017;23(4):307–17.
 64. Fruchter O, Schneer S, Rusanov V, Belenky A, Kramer MR. Bronchial artery embolization for massive hemoptysis: Long-term follow-up. Asian Cardiovasc Thorac Ann. 2015;23(1):55–60.
 65. Pei R, Zhou Y, Wang G, Wang H. Outcomes of Bronchial Artery Embolization for Life-Threatening Hemoptysis Secondary to Tuberculosis. 2014;1–9.
 66. Mondoni M, Carlucci P, Cipolla G. Bronchoscopy to assess patients with hemoptysis: Which is the optimal timing?, BMC pulmonary medicine, 2019;19 (1):1-6.