

BÖLÜM 31



Benign Mediasten Hastalıkları

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Giriş

Mediasten; her iki plevral boşluk arasındaki alan olarak tanımlanır. Sınırları anteriorda sternum, posteriorda torasik vertebra, inferiora diyafram, superiorda torasik inlet ve yanlarda parietal plevra yaprakları tarafından oluşturulur. İçerisinde kalp, büyük damarlar, trakea ve ana bronşlar, özofagus ve timus yapılarını barındırır. Bu bölümde mediastenin kompartmanları, mediastinal enfeksiyonlar ve benign mediastinal lezyonlardan bahsedilecektir.

Mediastenin Kompartmanları

Mediasten, içerdiği yapılara göre anatomik kompartmanlara ayrılmıştır. Bu anatomik kompartmanlar literatürde çeşitlilik gösterse de en sık 3 kompartman modeli ve 4 kompart-

man modeli kullanılmaktadır (1-3). Aralarındaki fark superior mediastinal kompartmanın ayrı bir antite olarak sayılmasıdır. Cerrahide kullanılan kompartman 3 kompartman modelidir.

Üç Kompartman Modeli

Üç kompartman modeli literatürde çeşitli sınıflamalar ile karşımıza çıkmaktadır. Geleneksel model, Felson modeli ve Shields' modeli bu sınıflamalara örnektir (2,4-6). Shields' modeli en sık kullanılandır. Bu sınıflamaya göre superiorda torasik inlet, inferiora da diyafram bu kompartmanları sınırlar. Ön, visceral ve arka kompartman olarak sınıflandırma yapılmıştır.

- Ön Kompartman: Anteriorda sternum, posteriorda perikard ve büyük damarlar ile sınırlanmıştır. İçerisinde timüs, mediastinal

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Kaynaklar

1. Susan S. Gray's *Anatomy: the Anatomical Basis of Clinical Practice*. 41st ed. New York: Elsevier; 2016:976–980.
2. Shields TW. The mediastinum, its compartments, and the mediastinal lymph nodes. In: Shields TW, ed. *General Thoracic Surgery*. 7th ed. Philadelphia, PA: Wolters Kluwer/Lippincott Williams & Wilkins; 2009:2055–2058.
3. Carter BW, Tomiyama N, Bhora F, et al. A modern definition of mediastinal compartments. *J Thorac Oncol* 2014;9:S97–S101
4. Kirschner PA. Anatomy and surgical access of the mediastinum. In: Pearson FG, ed. *Thoracic Surgery*. 2nd ed. New York: Churchill Livingstone; 2002:1563–1566.
5. Liu W, Deslauriers J. Mediastinal divisions and compartments. *Thorac Surg Clin* 2011;21:183–190.
6. Goodman LR. *Felson's Principles of Chest Roentgenology: A Programmed Text*. 4th ed. Philadelphia, PA: Saunders Elsevier; 2014:172–191.
7. Athanassiadi KA. Infections of the mediastinum. *Thorac Surg Clin* 2009; 19: 37–45
8. Vallina, P. M., Jiménez, D. E., Pérez, L. H., & Ramírez, A. T. (2011). Mediastinitis. *Archivos de bronconeumologia*, 47, 32-36.
9. Fry WA, Shields TW. Acute and chronic mediastinal infections. In: Shields TW (ed). *Mediastinal Surgery*. Philadelphia: Lea & Febiger; 1991: 101-8
10. Cirino LM, Elias FM, Almeida JL. Descending mediastinitis: A review. *Sao Paulo Med J* 2006; 124: 285-90
11. Kappus, S., & King, O. (2021). Mediastinitis. *StatPearls [Internet]*.
12. Estrera AS, Landay MJ, Grisham JM, Sinn DP, Platt MR. Decending necrotizing mediastinitis. *Surg Gynecol Obstet* 1983; 157: 542-52.
13. Krüger, M., Decker, S., Schneider, J. P., Haverich, A., & Schega, O. (2016). Surgical treatment of acute mediastinitis. *Der Chirurg; Zeitschrift für Alle Gebiete der Operativen Medizen*, 87(6), 478-485.
14. Satta, J.; Lahtinen, J.; Raisanen, L.; Salmela, E.; Juonen, T. Options for the management of poststernotomy mediastinitis. *Scand. Cardiovasc. J.* **1998**, 32, 29–32.
15. Sarr, M.G.; Gott, V.L.; Townsend, T.R. Mediastinal infection after cardiac surgery. *Ann. Thorac. Surg.* **1984**, 38, 415–423
16. Diez, C.; Koch, D.; Kuss, O.; Silber, R.E.; Friedrich, I.; Boergemann, J. Risk factors for mediastinitis after cardiac surgery—A retrospective analysis of 1700 patients. *J. Cardiothorac. Surg.* **2007**, 2, 23.
17. Salehi Omran A, Karimi A, Ahmadi SH, et al. Superficial and deep sternal wound infection after more than 9000 coronary artery bypass graft (CABG): Incidence, risk factors and mortality. *BMC Infect Dis* 2007; 7: 112
18. Sakamoto H, Fukuda I, Oosaka M, Nakata H. Risk factors and treatment of deep sternal wound infection after cardiac operation. *Ann Thorac Cardiovasc Surg* 2003; 9: 226-32.
19. Kubota, H., Miyata, H., Motomura, N., Ono, M., Takamoto, S., Harii, K., ... & Kyo, S. (2013). Deep sternal wound infection after cardiac surgery. *Journal of cardiothoracic surgery*, 8(1), 1-6.
20. Lin, J., & Jimenez, C. A. (2021, June). Acute mediastinitis, mediastinal granuloma, and chronic fibrosing mediastinitis: a review. In *Seminars in Diagnostic Pathology*. WB Saunders.
21. Gupta NM, Kaman L. Personal management of 57 consecutive patients with esophageal perforation. *Am J Surg* 2004; 187: 58-63
22. Mihos P, Potaris K, Gakidis I, Papadakis D, Rallis G. Management of descending necrosis mediastinitis. *J Oral Maxillofac Surg* 2009; 62: 966-72.
23. Sugio, K., Okamoto, T., Maniwa, Y., Toh, Y., Okada, M., Yamashita, T., ... & Society, J. B. E. (2021). Descending necrotizing mediastinitis and the proposal of a new classification. *JTCVS Open*.
24. Ridder, G. J., & Pfeiffer, J. (2011). Video assisted thoracoscopic surgery is a valuable approach for the management of descending necrotizing mediastinitis. *Annals of surgery*, 253(5), 1055-1056.
25. Peikert, T., Colby, T. V., Midthun, D. E., Pairolero, P. C., Edell, E. S., Schroeder, D. R., & Specks, U. (2011). Fibrosing mediastinitis: clinical presentation, therapeutic outcomes, and adaptive immune response. *Medicine*, 90(6), 412-423.
26. Yang, S., Wang, J., Li, J., Huang, K., & Yang, Y. (2021). Refractory pleural effusion as a rare complication of pulmonary vascular stenosis induced by fibrosing mediastinitis: a case report and literature review. *Journal of International Medical Research*, 49(5), 030006052111010073.
27. Haas, N., Dragojevic, D., & Borst, H. G. (1977). Dysphagia as a symptom of idiopathic fibrous mediastinitis. *Der Chirurg; Zeitschrift für Alle Gebiete der Operativen Medizen*, 48(7), 434-438.
28. Ikeda K, Nomori H, Mori T, Kobayashi H, Iwatani K, Yoshimoto K, Yoshioka M. Successful steroid treatment for fibrosing mediastinitis and sclerosing cervicitis. *Ann Thorac Surg.* 2007;83:1199-1201.
29. Loyd JE, Tillman BF, Atkinson JB, Des Prez RM. Mediastinal fibrosis complicating histoplasmosis. *Medicine (Baltimore)*. 1988;67:295-310.
30. Dodds GA III, Harrison JK, O'Laughlin MP, Wilson JS, Kisslo KB, Bashore TM. Relief of superior vena cava syndrome due to fibrosing mediastinitis using the Palmaz stent. *Chest.* 1994;106:315-318.
31. Doyle TP, Loyd JE, Robbins IM. Percutaneous pulmonary artery and vein stenting: a novel treatment for mediastinal fibrosis. *Am J Respir Crit Care Med.* 2001;164:657-660.
32. White ML, Doherty GM, Gauger PG. Evidence-based surgical management of substernal goiter. *World J Surg* 2008;32(7):1285-300.
33. Porterfield JJr, Factor D, Grant C. Technique of total thyroidectomy for large substernal goiters. *Operative Techniques in Otolaryngology* 2009;20(1):18-22

34. Wheeler MH. Clinical dilemma: retrosternal goitre. *Br J Surg* 1999;86:1235-1236
35. Yeung MJ, Serpell JW. Development of a parathyroid database in Melbourne and review of the last 50 cases. *ANZ J Surg*, 2004; 74: 741-744.
36. McKay GD, Ng TH, Morgan GJ, et al. Giant functioning parathyroid cyst presenting as a retrosternal goitre. *ANZ J Surg*. 2007;77:297-304.
37. Kumar A, Kumar S, Aggarwal S, et al. Thoracoscopy; the preferred method for excision of mediastinal parathyroids. *Surg Laparosc Endosc Percutan Tech*. 2002;12:295-300
38. Hamza A, Weissferdt A. Non-Neoplastic and benign tumoral lesions of the thymic gland: a review and update. *Adv Anat Pathol* 2019;26:257-69
39. Dural K, Özkan B, Özpolat B. Timus Hastalıkları ve Tedavisi. *Türkiye: Nobel Tıp Kitabevleri*; 2019:54-60.
40. Hara M, Suzuki H, Ohba S, Satake M, Ogino H, Itoh M, Yamakawa Y, Tateyama H. A Case of Thymic Cyst Associated with Thymoma and Intracystic Dissemination. *Radiation Medicine* 2000;18(5):311-3.
41. Rosado-de-Christenson, M. L., Pugatch, R. D., Moran, C. A., & Galobardes, J. (1994). Thymolipoma: analysis of 27 cases. *Radiology*, 193(1), 121-126.
42. Rosado-de-Christenson M.L, Templeton P.A, Moran C.A. Mediastinal Germ Cell Tumors: Radiologic and Pathologic Correlation. *Radio Graphics*. 1992;12:1013-30.
43. Shahidi H, Myers JL, Kvale PA. Castleman's Disease. *Mayo Clin Proc*. 1995;70:969-977.
44. Pauwels P, Dal Cin P, Vlasveld LT, et al. A chromosomal abnormality in hyaline vascular Castleman's disease: evidence for clonal proliferation of dysplastic stromal cells. *Am J Surg Pathol*. 2000;24:882-888.
45. Talat N, Schulte KM. Castleman's disease: systematic analysis of 416 patients from the literature. *Oncologist*. 2011;16:1316-1324.
46. Lambert AV. Etiology of thin walled thoracic cysts. *J Thorac Surg* 1940;10:1-7
47. Najib MQ, Chaliki HP, Raizada A, Ganji JL, Panse PM, Click RL. Symptomatic pericardial cyst: a case series. *Eur J Echocardiogr* 2011;12(11):E43.
48. Hekmat, M., Ghaderi, H., Tatari, H., Shabestari, A. A., & Mirjafari, S. A. (2016). Giant pericardial cyst: a case report and review of literature. *Iranian Journal of Radiology*, 13(1).
49. Ribert ME, Copin MC, Gosselin B. Bronchogenic cysts of the mediastinum. *J Thorac Cardiovasc Surg* 1995; 109: 1003-10 .
50. Jung HS, Kim DK, Lee GD, Sim HJ, Choi SH, Kim HR, et al. Video-assisted thoracic surgery for bronchogenic cysts: is this the surgical approach of choice?. *Interact Cardiovasc Thorac Surg* 2014 ; 824-9.
51. Strollo DC, Rosado-de-Christenson ML, Jett JR. Primary mediastinal Tumors: Part II. Tumors of the middle and posterior mediastinum. *Chest* 1997;112:1344-57.
52. Enzinger FM, Weiss SW. *Soft Tissue Tumors*. 2nd ed. St. Louis, MI: Mosby; 1998.
53. Neo EL, Watson DI, Bessell JR. Acute ruptured esophageal duplication cyst. *Dis Esophagus* 2004; 17: 109-11.
54. Pisello F, Geraci G, Arnone E, Sciuto A#, Modica G, Sciumè C. Acute onset of esophageal duplication cyst in adult. Case report. *G Chir* 2009; 30: 17-20.
55. Iglesias Sentis M, Belda Sanchis J, Gimferrer Garolera JM, Catalan Biela M, Rubio Garay M, Ramirez Ruz J. Mediastinal enteric cyst: unusual clinical presentation and histopathology. *Arch Bronconeumol* 2004;40: 185-7.