

BIBLIOGRAPHY

1. Light RW, MacGregor MI, Lushsinger PC, et al. Pleural effusions: the diagnostic separation of transudates and exudates. *Ann Intern Med* 1972; 77:507-13
2. Eduardo Garcia-Pachon et al. Pleural fluid to serum cholinesterase ratio for separation of transudates and exudates. *Chest* 1996;110:97-101
3. Manju Sharma, KB Gupta, Kirori M Goyal, Nitya Nand. Evaluation of Cholinesterase to Differentiate Pleural Exudates and Transudates. *JAPI* May,2004; 52:387-390
4. Lai-Fook, SJ. Pleural mechanics and fluid exchange. *Physiol Rev* 2004; 84:385.
5. Noppen, M. Normal volume and cellular contents of pleural fluid. *Curr Opin Pulm Med* 2001; 7:180.
6. Wang, NS. Anatomy of the pleura. *Clin Chest Med* 1998; 19:229.
7. Albertine, KH, Wiener-Kronish, JP, Bastacky, J, et al. No evidence for mesothelial cell contact across the costal pleural space of sheep. *J Appl Physiol* 1991; 70:123.
8. Fishman's Pulmonary diseases and disorders;1998 3rd edition. Chap 88-Pleural fluid dynamics and effusions, Kinasevitz GT; pg 1389
9. Von Hayek H: The Human Lung. New York, Hafner, 1960, pp 227-233.
10. Staub, NC, Wiener-Kronish, JP, Albertine, KH. Transport through the pleura: physiology of normal liquid and solute exchange in the pleural space. In: The Pleura in Health and Disease, vol 30, Chrétien J, Bignon J, Hirsch, A (Eds), Marcel Dekker, New York, 1985, p.169.
11. Albertine, KH, Wiener-Kronish, JP, Staub, NC. The structure of the parietal pleura and its relationship to pleural liquid dynamics in sheep. *Anat Rec* 1984; 208:401.
12. Wang, NS. The preformed stomas connecting the pleural cavity and the lymphatics in the parietal pleura. *Am Rev Respir Dis* 1975; 111:12.

13. Satoh K, Prescott SM: Culture of mesothelial cells from bovine pericardium and characterization of their arachidonate metabolism. *Biochim Biophys Acta* 930:283-296, 1987.
14. Shinohara, H. Distribution of lymphatic stomata on the pleural surface of the thoracic cavity and the surface topography of the pleural mesothelium in the golden hamster. *Anat Rec* 1997; 249:16.
15. Albertine, KH, Wiener-Kronish, JP, Roos, PJ, et al. Structure, blood supply, and lymphatic vessels of the sheep's visceral pleura. *Am J Anat* 1982; 165:277.
16. Wang, N-S. Mesothelial cells in situ. In: *The Pleura in Health and Disease*, vol 30, Chrétien J, Bignon J, Hirsch, A (Eds), Marcel Dekker, New York, 1985, p. 23.
17. Rennard, SI, Jaurand, M-C, Bignon, J, et al. Role of pleural mesothelial cells in the production of the submesothelial connective tissue matrix of lung. *Am Rev Respir Dis* 1984; 130:267.
18. Jaurand, MC, Kaplan, H, Thiollet, J, et al. Phagocytosis of chrysotile fibers by pleural mesothelial cells in culture. *Am J Pathol* 1979; 94:529.
19. Boylan, AM, Rüegg, C, Kim, KJ, et al. Evidence of a role for mesothelial cell-derived interleukin-8 in the pathogenesis of asbestos-induced pleurisy in rabbits. *J Clin Invest* 1992; 89:1257.
20. Goodman, RB, Wood, RG, Martin, TR, et al. Cytokine-stimulated human mesothelial cells produce chemotactic activity for neutrophils including NAP-1/IL-8. *J Immunol* 1992; 148:457.
21. Kuwahara, M, Kuwahara, M, Bijwaard, KE, et al. Mesothelial cells produce a chemoattractant for lung fibroblasts: Role of fibronectin. *Am J Respir Cell Mol Biol* 1991; 5:256.
22. Fishman's *Pulmonary diseases and disorders*; 1998 3rd edition. Chap 88-Pleural fluid dynamics and effusions, Kinasewitz GT, Ch 88, pg 1391
23. Idell, S, Zwieb, C, Kuman, A, et al. Pathways of fibrin turnover of human pleural mesothelial cells in vitro. *Am J Respir Cell Mol Biol* 1992; 7:414.

24. Noppen, M, De Waele, M, Li, R, et al. Volume and cellular content of normal pleural fluid in humans examined by pleural lavage [In Process Citation]. *Am J Respir Crit Care Med* 2000; 162:1023.
25. Zocchi L, Agostoni E, Cremaschi D: Electrolyte transport across the pleura in rabbits, *Respir Physiol* 86:125-138, 1991.
26. Lai-Fook, SJ, Kaplowitz, MR. Pleural protein concentration and liquid volume in spontaneously hypertensive rats. *Microvasc Res* 1988; 35:101.
27. Broaddus, VC, Araya, M, Carlton, DP, et al. Developmental changes of pleural liquid protein concentration in sheep. *Am Rev Respir Dis* 1991; 143:38.
28. Broaddus, VC, Wiener-Kronish, JP, Berthiaume, Y, et al. Removal of pleural liquid and protein by lymphatics in awake sheep. *J Appl Physiol* 1988; 64:384.
29. Miserocchi, G, Negrini, D, Mariani, E, et al. Reabsorption of a saline- or plasma-induced hydrothorax. *J Appl Physiol* 1983; 54:1574.
30. Kim, KJ, Critz, AM, Crandall, ED. Transport of water and solutes across sheep visceral pleura. *Am Rev Respir Dis* 1979; 120:883.
31. Wiener-Kronish JP, Matthay MA, Callen PW, et al: Relationship of pleural effusions to pulmonary hemodynamics in patients with congestive heart failure. *Am Rev Respir Dis* 132:1253-1256, 1985.
32. Crofton ch 43;pg 1157
33. Rudnick MR, Coyle JF, Beck LH, McCurdy DK: Acute massive hydrothorax complicating peritoneal dialysis, report of 2 cases and a review of literature. *Clin Nephrol* 12:38-44, 1979.
34. Mahfood S, Hix WR, Aaron BL, et al: Reexpansion pulmonary edema. *Ann Thorac Surg* 45:340-345, 1988.
35. Pettersson T, Froseth B, Riska H, Klockars M: Concentration of hyaluronic acid in pleural fluid as a diagnostic aid for malignant mesothelioma. *Chest* 94:1037-1039, 1988.

36. Poe RH, Israel RH, Utell MJ, et al: Sensitivity, specificity and predictive values of closed pleural biopsy. *Arch Intern Med* 144:325-328, 1984.
37. Chernow B, Sahn SA. Carcinomatous involvement of pleura: an analysis of 96 patients. *Am J Med* 1977; 63:695.
38. Halla JT, Schrohenloher RE, Volanakis JE. Immune complexes and other laboratory features of pleural effusions. A comparison of rheumatoid arthritis, systemic lupus erythematosus and other diseases. *Ann Intern Med* 1980;92:748
39. Andrews BS, Arora NS, Shadforth MF et al. The role of immune complexes in the pathogenesis of pleural effusions. *Am Rev Respir Dis* 1981; 124:115.
40. Estes D, Christian DL. The natural history of systemic lupus erythematosus by prospective analysis. *Medicine* 1971; 50:85.
41. Israel HC. The pulmonary manifestations of disseminated lupus erythematosus. *Am J Med Sci* 1953;226:387.
42. Alarcon-Segovia D, Alarcon DG. Pleuropulmonary manifestations of SLE. *Dis Chest* 1961;39:7.
43. Good JT, King TE, Antony VB, Sahn SA. Lupus pleuritis: clinical features and pleural fluid characteristics with special reference to pleural fluid antinuclear antibodies. *Chest* 1983; 84:714.
44. Chandrashekhara R, Levitan R. Spontaneous rupture of the esophagus. *Arch Intern Med* 1970; 126:1008.
45. Michel L, Grillo HC, Malt RA. Operative and non-operative management of esophageal perforations. *Ann Surg* 1981; 194:57.
46. Maulitz RM, Good JT, Kaplan RL et al. The pleuropulmonary consequences of esophageal rupture: an experimental model. *Am Rev Respir Dis* 1979; 120 : 363.
47. Collins, TR, Sahn, SA. Thoracentesis: Complications, patient experience, and diagnostic value. *Chest* 1987; 91:817.
48. Sahn, SA. State of the art. The pleura. *Am Rev Respir Dis* 1988; 138:184.

49. Sahn, SA. The diagnostic value of pleural fluid analysis. *Semin Respir Crit Care Med* 1995; 16:269.
50. Heffner, JE, Brown, LK, Barbieri, CA. Diagnostic value of tests that discriminate between exudative and transudative pleural effusions. *Chest* 1997; 111:970.
51. Chakko, SC, Caldwell, SH, Sforza, PP. Treatment of congestive heart failure: Its effect on pleural fluid chemistry. *Chest* 1989; 95:978.
52. Shinto, RA, Light, RW. The effects of diuresis on the characteristics of pleural fluid in patients with congestive heart failure. *Am J Med* 1990; 88:230.
53. Romero-Candeira, S, Fernandez, C, Martin, C, et al. Influence of diuretics on the concentration of proteins and other components of pleural transudates in patients with heart failure. *Am J Med* 2001; 110:681.
54. Winterbauer, RH, Riggins, RCK, Griesman, FA, Bauermeister, DE. Pleuropulmonary manifestations of Waldenstrom's macroglobulinemia. *Chest* 1974; 66:368.
55. Rodriguez, JN, Pereira, A, Martinez, JC, et al. Pleural effusion in multiple myeloma. *Chest* 1994; 105:662.
56. Light, RW, Girard, WM, Jenkinson, SG, George, RB. Parapneumonic effusions. *Am J Med* 1980; 69:507.
57. Pettersson, T, Klockars, M, Helmstrom, PE. Chemical and immunological features of pleural effusions: comparison between rheumatoid arthritis and other diseases. *Thorax* 1982; 37:354.
58. Johnson, JR, Falk, A, Iber, C, Davies, S. Paragonimiasis in the United States: A report of 9 cases in Hmong immigrants. *Chest* 1982; 82:168.
59. Horowitz, ML, Schiff, M, Samuels, J, et al. Pneumocystis carinii pleural effusion: Pathogenesis and pleural fluid analysis. *Am Rev Respir Dis* 1993; 148:232.

60. Garcia-Pachon, E, Padilla-Navas, I. Urinothorax: case report and review of the literature with emphasis on biochemical diagnosis. *Respiration* 2004; 71:533.
61. Sahn, SA. Pathogenesis and clinical features of diseases associated with a low pleural fluid glucose. In: *The Pleura in Health and Disease*. Chretien, J, Bignon, J, Hirsch, A (Eds), Marcel Dekker, New York, 1985; pp. 267-285.
62. Carr, DT, McGuckin, WF. Pleural fluid glucose. Serial observation of its concentration following oral administration of glucose to patients with rheumatoid pleural effusions and malignant effusions. *Am Rev Respir Dis* 1968; 97:302.
63. Taryle, DA, Good, JT Jr, Sahn, SA. Acid generation by pleural fluid: Possible role in the determination of pleural fluid pH. *J Lab Clin Med* 1979; 93:1041.
64. Good, JT Jr, Taryle, DA, Sahn, SA. The pathogenesis of low glucose, low pH malignant effusions. *Am Rev Respir Dis* 1985; 131:737.
65. Sahn, SA, Reller, LB, Taryle, DA, et al. The contribution of leukocytes and bacteria to the low pH of empyema fluid. *Am Rev Respir Dis* 1983; 128:811.
66. Cheng, DS, Rodriguez, RM, Rogers, J, et al. Comparison of pleural fluid pH values obtained using blood gas machine, pH meter, and pH indicator strip. *Chest* 1998; 114:1368.
67. Sahn, SA. Pleural fluid pH in the normal state and in diseases affecting the pleural space. In: *The Pleura in Health and Disease*, Marcel Dekker, New York, 1985; pp. 253-266.
68. Sahn, SA, Wilcox, ML, Good, JT Jr, et al. Characteristics of normal rabbit pleural fluid: Physiologic and biochemical implications. *Lung* 1979; 156:63.
69. Good, JT Jr, Antony, VB, Reller, LB, et al. The pathogenesis of the low pleural fluid pH in esophageal rupture. *Am Rev Respir Dis* 1983; 127:702.

70. Sahn, SA, Good, JT, Jr. Pleural fluid pH in malignant effusions. Diagnostic, prognostic, and therapeutic implications. *Ann Intern Med* 1988; 108:345.
71. Burrows, CM, Mathews, WC, Colt, HG. Predicting survival in patients with recurrent symptomatic malignant pleural effusions: An assessment of the prognostic values of physiologic, morphologic, and quality of life measures of extent of disease. *Chest* 2000; 117:73.
72. Heffner, JE, Nietert, PJ, Barbieri, C. Pleural fluid pH as a predictor of survival for patients with malignant pleural effusions. *Chest* 2000; 117:79.
73. Heffner, JE, Nietert, PJ, Barbieri, C. Pleural fluid pH as a predictor of pleurodesis failure: Analysis of primary data. *Chest* 2000; 117:87.
74. Joseph, J, Viney, S, Beck, P, et al. A prospective study of amylase-rich pleural effusions with special reference to amylase isoenzyme analysis. *Chest* 1992; 102:1455.
75. Piras, MA, Sakis, C, Brudoni, M, Andreoni, G. Adenosine deaminase activity in pleural effusions: An aid to differential diagnosis. *Br Med J* 1978; 2:1751.
76. Riantawan, P, Chaowalit, P, Wongsangiem, M, Rojanaraweewong, P. Diagnostic value of pleural fluid adenosine deaminase in tuberculous pleuritis with reference to HIV coinfection and a Bayesian analysis. *Chest* 1999; 116:97.
77. Ocaña, I, Martinez-Vazquez, JM, Segura, RM, et al. Adenosine deaminase in pleural fluids: Test for diagnosis of tuberculous pleural effusion. *Chest* 1983; 84:51.
78. Valdés, L, San José, E, Alvarez, D, et al. Diagnosis of tuberculous pleurisy using the biologic parameters adenosine deaminase, lysozyme, and interferon gamma. *Chest* 1993; 103:458.
79. Riantawan, P, Chaowalit, P, Wongsangiem, M, Roganaraweewong, P. Diagnostic valve of pleural fluid adenosine deaminase in tuberculous pleuritis with reference to HIV coinfection and a bayesian analysis. *Chest* 1999; 116:97.
80. Orriols, R, Coloma, R, Ferrer, J, et al. Adenosine deaminase in tuberculous pleural effusion. *Chest* 1994; 106:1633.

81. Bañales, JL, Pineda, PR, Fitzgerald, JM, et al. Adenosine deaminase in the diagnosis of tuberculous pleural effusions. A report of 218 patients and review of the literature. *Chest* 1991; 99:355.
82. Villegas, MV, Labrada, LA, Saravia, NG. Evaluation of polymerase chain reaction, adenosine deaminase, and interferon-gamma in pleural fluid for the differential diagnosis of pleural tuberculosis. *Chest* 2000; 118:1355.
83. Gakis, C. Adenosine deaminase in pleural effusions. *Chest* 1995; 107:1772.
84. Light, RW. *Pleural diseases*, 3rd ed, Williams Wilkins, Baltimore, 1995.
85. Yam, LT. Diagnostic significance of lymphocytes in pleural effusions. *Ann Intern Med* 1967; 66:972.
86. Adelman, M, Albelda, SM, Gottlieb, J, Haponik, EF. Diagnostic utility of pleural fluid eosinophilia. *Am J Med* 1984; 77:917.
87. Spriggs, AI, Boddington, NM. *The Cytology of Effusions*, 2d ed, Grune and Stratton, New York, 1968.
88. Rubins, JB, Rubins, HB. Etiology and prognostic significance of eosinophilic effusions. *Chest* 1996; 110:1271.
89. Martinez-Garcia, MA, Cases-Viedma, E, Cordero-Rodriguez, PJ, et al. Diagnostic utility of eosinophils in the pleural fluid. *Eur Respir J* 2000; 15:166.
90. Light, RW, Erozan, YS, Ball, WC. Cells in pleural fluid: Their value in differential diagnosis. *Arch Intern Med* 1973; 132:854.
91. Hurwitz, S, Leiman, G, Shapiro, C. Mesothelial cells in pleural fluid: TB or not TB? *S Afr Med J* 1980; 57:937.
86. Peterman TA, Speicher CE. Evaluating pleural effusions :A two-stage laboratory approach. *JAMA* 1984;252:1051-3.
92. Valdes L, Pose A, Alvarez D, Valle JM, Gude F. Biochemical discrimination of transudates and exudates (letter). *Chest* 1994;106:1634-5.

93. Romero S, Candela A, Martin C, Hernaudez L, Trigo C, Gil J. Evaluation of different criteria for the separation of pleural transudates from exudates. *Chest* 1993;104:399-404.
94. Vives M, Porcel JM, Vicente de Vera MC, Ribelles E, Rubio M. A study of Light 's criteria and possible modifications for distinguishing exudative from transudative pleural effusions. *Chest* 1996;109:1503-7.
95. Ord MG, Thompson RHS. The distribution of cholinesterase types in mammalian tissues. *Biochem J* 1950;46:346-52.
96. Vorhaus LJ, Kark RM. Serum cholinesterase in health and disease. *Am J Med* 1953;14:707-19.
97. Rubins JB, Colice GL. Evaluating pleural effusions. *Postgrad Med J* 1999;105:39-48.
98. Hall GE, Lucas CC. Cholinesterase activity of normal and pathological sera. *J Pharmacol Exper Therp* 1937;59:34.
99. Sawitoky A, Fitch HM, Meyer LM. A study of cholinesterase activity in the blood of normal subjects. *J Lab Clin Med* 1948;33:203-6.