

## 5. Literaturverzeichnis

1. Gross, S., Gerock, *Die Innere Medizin*. 9 ed. Vol. 9. 1996. 286.
2. Braunwald, A *Textbook of Cardiovascular Medicine*. 6 ed. Vol. 6. 2005, Philadelphia. 1754.
3. Felker, G.M., et al., *Underlying causes and long-term survival in patients with initially unexplained cardiomyopathy*. N Engl J Med, 2000. **342**(15): p. 1077-84.
4. Richardson, P., et al., *Report of the 1995 World Health Organization/International Society and Federation of Cardiology Task Force on the Definition and Classification of cardiomyopathies*. Circulation, 1996. **93**(5): p. 841-2.
5. Michels, V.V., et al., *The frequency of familial dilated cardiomyopathy in a series of patients with idiopathic dilated cardiomyopathy*. N Engl J Med, 1992. **326**(2): p. 77-82.
6. Baboonian, C., et al., *Coxsackie B viruses and human heart disease*. Curr Top Microbiol Immunol, 1997. **223**: p. 31-52.
7. Kuhl, U., et al., *High prevalence of viral genomes and multiple viral infections in the myocardium of adults with "idiopathic" left ventricular dysfunction*. Circulation, 2005. **111**(7): p. 887-93.
8. Tschope, C., et al., *High prevalence of cardiac parvovirus B19 infection in patients with isolated left ventricular diastolic dysfunction*. Circulation, 2005. **111**(7): p. 879-86.
9. Diaz, R.A., A. Obasohan, and C.M. Oakley, *Prediction of outcome in dilated cardiomyopathy*. Br Heart J, 1987. **58**(4): p. 393-9.
10. Kuhn, H., et al., *[The etiology, course and prognosis of dilated cardiomyopathy]*. Z Kardiol, 1982. **71**(8): p. 497-508.
11. Deedwania, P.C., *The key to unraveling the mystery of mortality in heart failure: an integrated approach*. Circulation, 2003. **107**(13): p. 1719-21.
12. Konstam, M.A., *Progress in heart failure Management? Lessons from the real world*. Circulation, 2000. **102**(10): p. 1076-8.
13. CONSENSUS, *Effects of enalapril on mortality in severe congestive heart failure: results of the Cooperative North Scandinavian Enalapril Survival Study*. N Engl J Med, 1987. **316**: p. 1429-1435.
14. SOLVD, *The effect of enalapril on survival in patients with reduced left ventricular ejection fractions and congestive heart failure*. N Engl J Med, 1991. **325**: p. 293-302.
15. Dec, G.W. and V. Fuster, *Idiopathic dilated cardiomyopathy*. N Engl J Med, 1994. **331**(23): p. 1564-75.
16. Pitt B, Z.F., Remme WJ, et al., *The effect of spironolactone on morbidity and mortality in patients with severe heart failure*. N Engl J Med, 1999. **341**(10): p. 709-717.
17. Dries, D.L., et al., *Racial differences in the outcome of left ventricular dysfunction*. N Engl J Med, 1999. **340**(8): p. 609-16.
18. Baenkler, H.W., *Innere Medizin Duale Reihe*. Vol. 1. 1999: MLP Duale Reihe.
19. Bigger, *Why patients with congestive heart failure die: arrhythmias and sudden cardiac death*. circulation, 1987. **75** (suppl IV)(I): p. IV-28.
20. Engelstein ED, Z.D., *The Heart, Arteries and Veins*. Sudden cardiac death. 1998, New York: Mc-Graw Hill. 1081-1112.
21. Myerburg RJ, C.A., *Heart Disease*. Cardiac arrest and sudden death, ed. B. E. 1997, Philadelphia: Saunders. 742-779.
22. Zipes DP, W.H., *Sudden cardiac death*. Circulation, 1998. **98**: p. 2334-51.
23. Sugrue, D.D., et al., *The clinical course of idiopathic dilated cardiomyopathy. A population-based study*. Ann Intern Med, 1992. **117**(2): p. 117-23.
24. Romeo, F., et al., *Predictors of sudden death in idiopathic dilated cardiomyopathy*. Am J Cardiol, 1989. **63**(1): p. 138-40.
25. Gold, M.R., et al., *A comparison of T-wave alternans, signal averaged electrocardiography and programmed ventricular stimulation for arrhythmia risk stratification*. J Am Coll Cardiol, 2000. **36**(7): p. 2247-53.

26. Grimm, W., et al., *Noninvasive arrhythmia risk stratification in idiopathic dilated cardiomyopathy: design and first results of the Marburg Cardiomyopathy Study*. Pacing Clin Electrophysiol, 1998. **21**(11 Pt 2): p. 2551-6.
27. Armoundas, A.A., et al., *Prognostic significance of electrical alternans versus signal averaged electrocardiography in predicting the outcome of electrophysiological testing and arrhythmia-free survival*. Heart, 1998. **80**(3): p. 251-6.
28. Keeling PJ, K.P., Yi G, Slade AK, Bent SE, McKenna WJ, *Usefulness of signal-averaged electrocardiogram in idiopathic dilated cardiomyopathy for identifying patients with ventricular arrhythmias*. Am J Cardiol, 1993. **72**: p. 78-84.
29. Grimm, W., et al., *Relation between microvolt level T wave alternans and other potential noninvasive predictors of arrhythmic risk in the Marburg Cardiomyopathy Study*. Pacing Clin Electrophysiol, 2000. **23**(11 Pt 2): p. 1960-4.
30. Hohnloser, S.H., et al., *T wave alternans as a predictor of recurrent ventricular tachyarrhythmias in ICD recipients: prospective comparison with conventional risk markers*. J Cardiovasc Electrophysiol, 1998. **9**(12): p. 1258-68.
31. Sakabe, K., et al., *Comparison of T-wave alternans and QT interval dispersion to predict ventricular tachyarrhythmia in patients with dilated cardiomyopathy and without antiarrhythmic drugs: a prospective study*. Jpn Heart J, 2001. **42**(4): p. 451-7.
32. Hoffmann J, G.W., Menz V, Knop U, Maisch B, *Heart rate variability and major arrhythmic events in patients with idiopathic dilated cardiomyopathy*. Pacing Clin Electrophysiol, 1996. **19**: p. 1841-44.
33. Pastore, J.M., et al., *Mechanism linking T-wave alternans to the genesis of cardiac fibrillation*. Circulation, 1999. **99**(10): p. 1385-94.
34. Smith, J.M., et al., *Electrical alternans and cardiac electrical instability*. Circulation, 1988. **77**(1): p. 110-21.
35. Adam, D.R., et al., *Fluctuations in T-wave morphology and susceptibility to ventricular fibrillation*. J Electrocardiol, 1984. **17**(3): p. 209-18.
36. Hering, *Experimentelle Studien an Säugetieren über das Elektrokardiogramm*. Zschr Exper Path Therapie, 1909. **7**: p. 363.
37. Surawicz, B. and C. Fisch, *Cardiac alternans: diverse mechanisms and clinical manifestations*. J Am Coll Cardiol, 1992. **20**(2): p. 483-99.
38. Fisch, C., R.E. Edmands, and K. Greenspan, *T wave alternans: an association with abrupt rate change*. Am Heart J, 1971. **81**(6): p. 817-21.
39. Momiyama, Y., et al., *Exercise-induced T-wave alternans as a marker of high risk in patients with hypertrophic cardiomyopathy*. Jpn Circ J, 1997. **61**(8): p. 650-6.
40. Zareba, W., F. Badilini, and A.J. Moss, *Automatic detection of spatial and dynamic heterogeneity of repolarization*. J Electrocardiol, 1994. **27**(Suppl): p. 66-72.
41. Luomanmaki, K., J. Heikkila, and M. Hartikainen, *T-wave alternans associated with heart failure and hypomagnesemia in alcoholic cardiomyopathy*. Eur J Cardiol, 1975. **3**(3): p. 167-70.
42. Navarro-Lopez, F., et al., *Isolated T wave alternans elicited by hypocalcemia in dogs*. J Electrocardiol, 1978. **11**(2): p. 103-8.
43. El-Sherif, N., et al., *T-wave alternans and arrhythmia risk stratification*. Ann Noninvasive Electrocardiol, 2001. **6**(4): p. 323-32.
44. Rowland, V., et al., *Isolated T wave alternans progressing to QRS-T alternation after ventricular defibrillation*. Angiology, 1977. **28**(1): p. 58-62.
45. Kunavarapu, C. and D.M. Bloomfield, *Role of noninvasive studies in risk stratification for sudden cardiac death*. Clin Cardiol, 2004. **27**(4): p. 192-7.
46. Platt, S.B., et al., *Occult T wave alternans in long QT syndrome*. J Cardiovasc Electrophysiol, 1996. **7**(2): p. 144-8.
47. Albrecht, P., et al., *Exercise recordings for the detection of T wave alternans. Promises and pitfalls*. J Electrocardiol, 1996. **29**(Suppl): p. 46-51.
48. Breithardt, G., et al., *Standards for analysis of ventricular late potentials using high-resolution or signal-averaged electrocardiography: a statement by a task force committee of the European Society of Cardiology, the American Heart Association, and the American College of Cardiology*. J Am Coll Cardiol, 1991. **17**(5): p. 999-1006.

49. Hohnloser, S.H., et al., *T wave alternans during exercise and atrial pacing in humans*. J Cardiovasc Electrophysiol, 1997. **8**(9): p. 987-93.
50. Rosenbaum, D.S., P. Albrecht, and R.J. Cohen, *Predicting sudden cardiac death from T wave alternans of the surface electrocardiogram: promise and pitfalls*. J Cardiovasc Electrophysiol, 1996. **7**(11): p. 1095-111.
51. Klingenheben, T., et al., [T-wave alternans in microwave frequency as a new indicator of disordered ventricular repolarization: pathophysiology, methodology, clinical results]. Z Kardiol, 1999. **88**(12): p. 974-81.
52. Bloomfield, D.M., S.H. Hohnloser, and R.J. Cohen, *Interpretation and classification of microvolt T wave alternans tests*. J Cardiovasc Electrophysiol, 2002. **13**(5): p. 502-12.
53. Hsia, H.H. and F.E. Marchlinski, *Electrophysiology studies in patients with dilated cardiomyopathies*. Card Electrophysiol Rev, 2002. **6**(4): p. 472-81.
54. Hallstrom, A., et al., *Relations between heart failure, ejection fraction, arrhythmia suppression and mortality: analysis of the Cardiac Arrhythmia Suppression Trial*. J Am Coll Cardiol, 1995. **25**(6): p. 1250-7.
55. Huikuri, H.V., A. Castellanos, and R.J. Myerburg, *Sudden death due to cardiac arrhythmias*. N Engl J Med, 2001. **345**(20): p. 1473-82.
56. Packer, M., *Lack of relation between ventricular arrhythmias and sudden death in patients with chronic heart failure*. Circulation, 1992. **85**(1 Suppl): p. I50-6.
57. Gradman, A., et al., *Predictors of total mortality and sudden death in mild to moderate heart failure*. Captopril-Digoxin Study Group. J Am Coll Cardiol, 1989. **14**(3): p. 564-70; discussion 571-2.
58. Bigger, J.T., Jr., et al., *The relationships among ventricular arrhythmias, left ventricular dysfunction, and mortality in the 2 years after myocardial infarction*. Circulation, 1984. **69**(2): p. 250-8.
59. Adachi, K., et al., *Determinant of microvolt-level T-wave alternans in patients with dilated cardiomyopathy*. J Am Coll Cardiol, 1999. **34**(2): p. 374-80.
60. Hennersdorf, M.G., et al., *T wave alternans as a risk predictor in patients with cardiomyopathy and mild-to-moderate heart failure*. Pacing Clin Electrophysiol, 2000. **23**(9): p. 1386-91.
61. Walker ML, R.D., *Repolarization alternans: implications for the mechanism and prevention of sudden cardiac death*. Cardiovascular Research, 2003. **57**: p. 599-614.
62. Narayan, M., *T-Wave Alternans and the Susceptibility to Ventricular Arrhythmias*. J Am Coll Cardiol, 2006. **47**(2): p. 269-81.
63. Smith JM, C.R., *Simple finite-element model accounts for wide range of ventricular dysrhythmias*. Proc Nat Acad Sci USA, 1984. **81**: p. 233-237.
64. Kleinfeld, M., J. Magin, and E. Stein, *Electrical alternans in single ventricular fibers of the frog heart*. Am J Physiol, 1956. **187**(1): p. 139-42.
65. Kleinfeld, M., E. Stein, and C.E. Kossmann, *Electrical alternans with emphasis on recent observations made by means of single-cell electrical recording*. Am Heart J, 1963. **65**: p. 495-500.
66. Estes, N.A., 3rd, et al., *Electrical alternans during rest and exercise as predictors of vulnerability to ventricular arrhythmias*. Am J Cardiol, 1997. **80**(10): p. 1314-8.
67. Hohnloser, S.H., et al., *Usefulness of microvolt T-wave alternans for prediction of ventricular tachyarrhythmic events in patients with dilated cardiomyopathy: results from a prospective observational study*. J Am Coll Cardiol, 2003. **41**(12): p. 2220-4.
68. Watanabe, M.A., et al., *Mechanisms for discordant alternans*. J Cardiovasc Electrophysiol, 2001. **12**(2): p. 196-206.
69. Hirayama, Y., et al., *Electrical and mechanical alternans in canine myocardium in vivo. Dependence on intracellular calcium cycling*. Circulation, 1993. **88**(6): p. 2894-902.
70. Beuckelmann, D.J., M. Nabauer, and E. Erdmann, *Intracellular calcium handling in isolated ventricular myocytes from patients with terminal heart failure*. Circulation, 1992. **85**(3): p. 1046-55.
71. Pruvot, E.J., et al., *Role of Calcium Cycling versus Restitution in the Mechanism of Repolarization Alternans*. Circ Res, 2004. **94**: p. 1083-1090.
72. Tanno, K., et al., *Onset heart rate and microvolt t-wave alternans during atrial pacing*. Am J Cardiol, 2000. **86**(8): p. 877-880.

73. Bansch, D., et al., *Primary prevention of sudden cardiac death in idiopathic dilated cardiomyopathy: the Cardiomyopathy Trial (CAT)*. Circulation, 2002. **105**(12): p. 1453-8.
74. Rosenbaum, D.S., et al., *Electrical alternans and vulnerability to ventricular arrhythmias*. N Engl J Med, 1994. **330**(4): p. 235-41.
75. Gold MR, B.D., Anderson KP, Wilber DJ, El-Sherif N, Estes MNA, Groh WJ, Kaufmann ES, Greenberg ML, Cohen RJ, *T wave alternans predicts arrhythmia vulnerability in patients undergoing electrophysiological study*. Circulation, 1998. **98**(suppl): p. I-647.
76. Klingenheben, T., et al., *Predictive value of T-wave alternans for arrhythmic events in patients with congestive heart failure*. Lancet, 2000. **356**(9230): p. 651-2.
77. Bremilla-Perrot, B., et al., *The signal-averaged electrocardiogram is of limited value in patients with bundle branch block and dilated cardiomyopathy in predicting inducible ventricular tachycardia or death*. Am J Cardiol, 1997. **79**(2): p. 154-9.
78. Schumacher, B., et al., *[Prognostic value of signal averaged ECG in dilated cardiomyopathy with spontaneous and induced ventricular tachyarrhythmias]*. Z Kardiol, 1995. **84**(6): p. 468-75.
79. Armondas, A.A., et al., *T-wave alternans and dispersion of the QT interval as risk stratification markers in patients susceptible to sustained ventricular arrhythmias*. Am J Cardiol, 1998. **82**(9): p. 1127-9, A9.
80. Pastore, J.M. and D.S. Rosenbaum, *Role of structural barriers in the mechanism of alternans-induced reentry*. Circ Res, 2000. **87**(12): p. 1157-63.
81. Grimm, W., et al., *Noninvasive arrhythmia risk stratification in idiopathic dilated cardiomyopathy: results of the Marburg Cardiomyopathy Study*. Circulation, 2003. **108**(23): p. 2883-91.
82. Kitamura, H., et al., *Onset heart rate of microvolt-level T-wave alternans provides clinical and prognostic value in nonischemic dilated cardiomyopathy*. J Am Coll Cardiol, 2002. **39**(2): p. 295-300.
83. Moss, A.J., et al., *Prophylactic implantation of a defibrillator in patients with myocardial infarction and reduced ejection fraction*. N Engl J Med, 2002. **346**(12): p. 877-83.
84. Bardy, G., et al., *Amiodaron or an implantable cardioverter-defibrillator for congestive heart failure*. N Engl J Med, 2005. **352**: p. 225-37.