

## Literatur

### Akute Herzrhythmusstörungen im Kindesalter

D. J. Backhoff, M. B. Gonzalez y Gonzalez

1. Fleming S et al. Normal ranges of heart rate and respiratory rate in children from birth to 18 years of age: a systematic review of observational studies. *Lancet* 2011; 377: 1011–1018
2. Davignon A et al. Normal ECG standards for infants and children. *Pediatr Cardiol* 1980; 1: 123–131
3. Van de Voorde P et al. European Resuscitation Council Guidelines 2021: Paediatric Life Support. *Resuscitation* 2021; 161: 327–387
4. Hahurij ND et al. Accessory atrioventricular myocardial connections in the developing human heart: relevance for perinatal supraventricular tachycardias. *Circulation* 2008; 117: 2850–2858
5. Kuck KH et al. Sites of conduction block in accessory atrioventricular pathways. Basis for concealed accessory pathways. *Circulation* 1990; 82: 407–417
6. Paul T et al. Leitlinie Tachykarde Herzrhythmusstörungen. Deutsche Gesellschaft für Pädiatrische Kardiologie, 2011.  
([http://www.kinderkardiologie.org/fileadmin/user\\_upload/Leitlinien/13%20LL%20Tachykardie%20HerzrhythmusstoerungenAS.pdf](http://www.kinderkardiologie.org/fileadmin/user_upload/Leitlinien/13%20LL%20Tachykardie%20HerzrhythmusstoerungenAS.pdf)). Zugegriffen: 18.04.2022.
7. Alzand BSN & Crijns HJGM. Diagnostic criteria of broad QRS complex tachycardia: decades of evolution. *Europace* 2011; 13: 465–472
8. Collins KK et al.; Pediatric and Congenital Electrophysiology Society. Fascicular and nonfascicular left ventricular tachycardias in the young: an international multicenter study. *J Cardiovasc Electrophysiol* 2013; 24: 640–648
9. Brugada J et al.; European Heart Rhythm Association; Association for European Paediatric and Congenital Cardiology. Pharmacological and non-pharmacological therapy for arrhythmias in the pediatric population: EHRA and AEPC-Arrhythmia Working Group joint consensus statement. *Europace* 2013; 15: 1337–1382
10. Hernández-Madrid A et al.; ESC Scientific Document Group. Arrhythmias in congenital heart disease: a position paper of the European Heart Rhythm Association (EHRA), Association for European Paediatric and Congenital Cardiology (AEPC), and the European Society of Cardiology (ESC) Working Group on Grown-up Congenital heart disease, endorsed by HRS, PACES, APHRS, and SOLAEC. *Europace* 2018; 20: 1719–1753.
11. Khairy P et al. Implantable cardioverter-defibrillators in tetralogy of Fallot. *Circulation* 2008; 117: 363–370
12. Fischbach PS et al. Natural history and current therapy for complete heart block in children and patients with congenital heart disease. *Congenit Heart Dis* 2007; 2: 224–234
13. Paul T et al. Leitlinie Bradykarde Herzrhythmusstörungen im Kindes- und Jugendalter sowie bei jungen Erwachsenen mit einem angeborenen Herzfehler (EMAH). Deutsche Gesellschaft für Pädiatrische Kardiologie, 2019.  
([http://www.kinderkardiologie.org/fileadmin/user\\_upload/Leitlinien/2019\\_09\\_04\\_LL-Bradykardie\\_final.pdf](http://www.kinderkardiologie.org/fileadmin/user_upload/Leitlinien/2019_09_04_LL-Bradykardie_final.pdf)). Zugegriffen: 18.04.2022

# Mitochondrialer Diabetes mellitus

G. Treiber, C. Harer, J. K. Mader

Literatur:

1. Grant P et al. When to suspect “funny” diabetes. *Clin Med (Lond)* 2014; 14: 663–666.
2. Yeung RO et al. Not quite type 1 or type 2, what now? Review of monogenic, mitochondrial, and syndromic diabetes. *Rev Endocr Metab Disord* 2018; 19: 35–52.
3. Murphy R et al. Clinical features, diagnosis and management of maternally inherited diabetes and deafness (MIDD) associated with the 3243A>G mitochondrial point mutation. *Diabet Med* 2008; 25: 383–399.
4. Maassen JA et al. Mitochondrial diabetes: molecular mechanisms and clinical presentation. *Diabetes* 2004; 53 (Suppl 1): S103–S109.
5. Chinnery PF et al. Epigenetics, epidemiology and mitochondrial DNA diseases. *Int J Epidemiol* 2012; 41: 177–187.
6. Manwaring N et al. Population prevalence of the MELAS A3243G mutation. *Mitochondrion* 2007; 7: 230–233.
7. Chow J et al. Mitochondrial disease and endocrine dysfunction. *Nat Rev Endocrinol* 2017; 13: 92–104.
8. de Lusignan S et al. Miscoding, misclassification and misdiagnosis of diabetes in primary care. *Diabet Med* 2012; 29: 181–189.
9. Ng YS et al. Sudden adult death syndrome in m.3243A>G-related mitochondrial disease: an unrecognized clinical entity in young, asymptomatic adults. *Eur Heart J* 2016; 37: 2552–2559.
10. Duran J et al. Cardiovascular Manifestations of Mitochondrial Disease. *Biology (Basel)* 2019; 8: 34.
11. Gagliardi D et al. Can Intestinal Pseudo-Obstruction Drive Recurrent Stroke-Like Episodes in Late-Onset MELAS Syndrome? A Case Report and Review of the Literature. *Front Neurol* 2019; 10: 38.
12. Schaefer AM et al. Endocrine disorders in mitochondrial disease. *Mol Cell Endocrinol* 2013; 379: 2–11.
13. Murphy R. Monogenic diabetes and pregnancy. *Obstet Med* 2015; 8: 114–120.
14. Hosono T et al. Contraindication of magnesium sulfate in a pregnancy complicated with late-onset diabetes mellitus and sensory deafness due to mitochondrial myopathy. *J Matern Fetal Med* 2001; 10: 355–356.
15. Carroll RW & Murphy R. Monogenic diabetes: a diagnostic algorithm for clinicians. *Genes* 2013; 4: 522–535.
16. de Laat P et al. Clinical features and heteroplasmy in blood, urine and saliva in 34 Dutch families carrying the m.3243A > G mutation. *J Inherit Metab Dis* 2012; 35: 1059–1069.
17. Parikh S et al. Diagnosis of “possible” mitochondrial disease: an existential crisis. *J Med Genet* 2019; 56: 123–130.
18. De Vries MC et al. Safety of drug use in patients with a primary mitochondrial disease: An international Delphi-based consensus. *J Inherit Metab Dis* 2020; 43: 800–818.
19. Suzuki S et al. The effects of coenzyme Q10 treatment on maternally inherited diabetes mellitus and deafness, and mitochondrial DNA 3243 (A to G) mutation. *Diabetologia* 1998; 41: 584–588.
20. Yeung RO et al. Management of mitochondrial diabetes in the era of novel therapies. *J Diabetes Complications* 2021; 35: 107584.

21. El-Hattab AW et al. Therapies for mitochondrial diseases and current clinical trials. *Mol Genet Metab* 2017; 122: 1–9.
22. Parikh S et al. Patient care standards for primary mitochondrial disease: a consensus statement from the Mitochondrial Medicine Society. *Genet Med* 2017; 19: 10.1038/gim.2017.107.

## Wenn Arzneimittel zu einem Biofaktorenmangel führen

*D. Birkelbach*

### Literatur:

1. Mohn ES et al. Evidence of Drug-Nutrient interactions with chronic use of commonly prescribed medications: An update. *Pharmaceutics* 2018; 10(1): 36
2. Samaras D et al. Effects of widely used drugs on micronutrients: A story rarely told. *Nutrition* 2013; 29(4): 605-610
3. Kass LS et al. Effect of magnesium supplementation on blood pressure: A meta-analysis. *Eur J Clin Nutr* 2012; 66(4): 411-418
4. Zhang X et al. Effects of magnesium supplementation on blood pressure. A meta-analysis of randomized double-blind placebo-controlled trials. *Hypertension* 2016; 68(2): 324-333
5. Kisters K et al. Magnesiumhaushalt und Therapie bei Hypertonie. *Nieren- und Hochdruckkrankheiten*. 2020; 49(5): 245-251
6. Micke O et al. Magnesium – Bedeutung für die hausärztliche Praxis: Positionspapier der Gesellschaft für Magnesium-Forschung e.V. *Dtsch Med Wochenschr* 2020; 145(22): 1628-1634
7. Späting L et al. Diagnostik des Magnesiummangels. Aktuelle Empfehlungen der Gesellschaft für Magnesium-Forschung e. V. *Fortschritte der Medizin* 2000; 118: 49-53
8. Workinger JL et al. Challenges in the diagnosis of magnesium status. *Nutrients* 2018, 10(9): 1202
9. Walker AF et al. Mg citrate found more bioavailable than other Mg preparations in a randomised, double-blind study. *Magnes Res* 2003; 16(3): 183-91
10. Blancquaert et al., Predicting and Testing Bioavailability of Magnesium Supplements. *Nutrients* 2019; 11(7): 1663
11. Valsamis HA et al. Antiepileptic drugs and bone metabolism. *Nutr Metab* 2006; 3(36):1-11
12. Vestergaard P: Epilepsy, osteoporosis and fracture risk – a meta-analysis. *Acta Neurol Scand* 2005; 112(5): 277-286
13. Kanis JA et al. A meta-analysis of prior corticosteroid use and fracture risk. *J Bone Miner Res* 2004; 19(6): 893-899
14. Leipe J et al. Empfehlungen der Deutschen Gesellschaft für Rheumatologie zum Management der Glucocorticoid-induzierten Osteoporose. *Rheumatol* 2021; 80: 670-687
15. DVO-Leitlinie Glukokortikoidinduzierte Osteoporose, 2017, [www.dv-osteologie.org](http://www.dv-osteologie.org)
16. Boullata JJ et al. Drug-nutrient interactions: A broad view with implications for practice. *J Acad Nutr Diet* 2012; 112(4): 506-517
17. Chan LN: Drug-nutrient interactions. *JPEN* 2013; 37(4): 450-459
18. Wang TJ et al. Vitamin D deficiency and risk of cardiovascular disease. *Circulation* 2008; 117(4): 503-511

19. Vázquez-Lorente H et al. Response of Vitamin D after Magnesium Intervention in a Postmenopausal Population from the Province of Granada, Spain. *Nutrients* 2020; 12(8): 2283
20. Holick MF et al. Vitamin D deficiency: a worldwide problem with health consequences. *Am J Clin Nutr* 2008; 87(4): 1080S-1086S
21. Pilz S et al. Vitamin D status and arterial hypertension: a systematic review. *Nat Rev Cardiol* 2009; 6(10): 621-630
22. Pilz S et al. Role of vitamin D in arterial hypertension. *Expert Rev Cardiovasc Ther* 2010; 8(11): 1599-1608
23. Bischoff-Ferrari HA: Hype um die Vitamin-D-Substitution: Was bleibt? *Internist (Berl)*. 2020; 61(11): 1196-1203
24. Barbarawi M et al. Vitamin D Supplementation and Cardiovascular Disease Risks in More Than 83 000 Individuals in 21 Randomized Clinical Trials: A Meta-analysis. In: *JAMA Cardiol* 2019; 4(8): 765-776
25. Reddy P et al. Magnesium Supplementation in Vitamin D Deficiency. *Am J Ther* 2019; 26(1): e124-e132
26. rki.de/SharedDocs/FAQ/Vitamin\_D/FAQ07
27. Grant WB et al. Benefits and requirements of vitamin D for optimal health: a review. *Altern Med Rev* 2005; 10(2): 94-111
28. Antoniou T et al. Proton pump inhibitors and the risk of acute kidney injury in older patients: a population-based cohort study. *CMAJ Open* 2015; 3(2): E166-E171
29. Xie Y et al. Proton pump inhibitors and risk of incident CKD and progression to ESRD. *JASN* 2016; 27(10): 3153-3163
30. Gomm W et al. Association of proton pump inhibitors with risk of dementia: a pharmacoepidemiological claims data analysis. *JAMA Neurol* 2016; 73(4): 410-416
31. Lam JR et al. Proton pump inhibitor and histamine 2 receptor antagonist use and vitamin B12 deficiency. *JAMA* 2013; 310(22): 2435-2442
32. Köbe T et al. Vitamin B12 concentration, memory performance and hippocampal structure in patients with mild cognitive impairment. *Am J Clin Nutr* 2016; 103(4): 1045-1054
33. Syed EU et al. Vitamin B12 Supplementation in Treating Major Depressive Disorder: A Randomized Controlled Trial. *Open Neurol J* 2013; 7: 44-48
34. Pop-Busui et al. 2022 American Diabetes Association; Diagnosis and Treatment of Painful Diabetic Peripheral Neuropathy; ADA Clinical Compendia Series 2022; available online at <https://professional.diabetes.org/monographs#PDN>
35. De Groot-Kamphuis DM et al. Vitamin B12 deficiency and the lack of its consequences in type 2 diabetes patients using metformin. *Neth J Med* 2013; 71(7): 386-390
36. Damião CP et al. Prevalence of vitamin B12 deficiency in type 2 diabetic patients using metformin: a cross-sectional study. *Sao Paulo Med J* 2016; 134(6): 473-479
37. Yang W et al. Associations between metformin use and vitamin B12 level, anemia and neuropathy in patients with diabetes: a meta-analysis. *J Diabetes* 2019; 11(9): 729-743
38. Chapman et al. Association between metformin and vitamin B12 deficiency in patients with type 2 diabetes: A systematic review and meta-analysis. *Diabetes metab* 2016 Nov; 42(5): 316-327
39. Chamberlain JJ et al. Pharmacologic therapy for type 2 diabetes: Synopsis of the 2017 American Diabetes Association Standards of medical care in diabetes. *An Intern Med* 2017; 166(8): 572-578

40. Wile DJ: Association of Metformin, elevated homocysteine and methylmalonic acid levels and clinically worsened diabetic peripheral neuropathy. *Diabetes Care* 2010; 33(1): 156-161
41. Alvarez M et al. Vitamin B12 deficiency and diabetic neuropathy in patients taking metformin: a cross-sectional study. *Endocrine Connections* 2019; 8: 1324–1329
42. Uncini A et al. Polyneuropathy associated with duodenal infusion of levodopa in Parkinson's disease: features, pathogenesis and management. *J Neurol Neurosurg Psychiatry* 2015; 86(5): 490-495
43. Klein, F. *Parkinson-Therapie: Her mit den Vitaminen!* DNP 2015, 16: 14ff
44. Gröber U: *Arzneimittel und Mikronährstoffe.* Stuttgart: Wissenschaftliche Verlagsgesellschaft mbH 2007
45. Andrès et al. Systematic review and pragmatic clinical approach to oral and nasal vitamin B12 (Cobalamin) treatment in patients with vitamin B12 deficiency related to gastrointestinal disorders. *J Clin Med* 2018; 7(10): 304
46. Biesalski HK et al. *Ernährungsmedizin. Nach dem Curriculum Ernährungsmedizin der Bundesärztekammer,* 5. Auflage, Stuttgart: Thieme, 2018
47. Bolaman Z et al. Oral versus intramuscular cobalamin treatment in megaloblastic anemia: A single-center, prospective, randomized, open-label study. *Clin Ther* 2003; 25(12): 3124-3134
48. Vidal-Alaball JV et al. Oral vitamin B12 versus intramuscular vitamin B12 for vitamin B12 deficiency. *Cochrane Database. Syst Rev* 2005; (3): CD004655
49. Sanz-Cuesta T et al. Oral versus intramuscular administration of vitamin B12 for vitamin B12 deficiency in primary care: a pragmatic, randomised, non-inferiority clinical trial (OB12). *BMJ Open* 2020; 10(8): e033687
50. Atsmon et al. Drug-induced hypomagnesaemia: scope and management. *Drug Saf* 2005; 28(9): 763-788