

Neuro aktuell

Ausgabe 4-2021

Literatur

Schwerpunkt: Multiple Sklerose

Titel: Zum virtuellen Training bei Multiple Sklerose – Eine kritische Auseinandersetzung zu Möglichkeiten der Evaluation für das Funktionstraining online (S. 7–18)

Autoren: A-M. Gemmerich, S. Woschek, S. Goßler, L. Dinges, N. Scholl, C. Klump, C. T. Haas

Literatur:

1. John M. Bericht Telemedizin 2015. Medizinische Assistenzsysteme in der Prävention, Rehabilitation und Nachsorge. Frauenhofer Fokus 2015
2. Angele S. Die medizinische Rehabilitation. Ein Überblick. Schriftenreihe der GVG 2010; 66: 46–47
3. Ekeland A et al. Methodologies for assessing telemedicine: A systematic review of reviews. *2nt J Med Inform* 2012; 81(1): 1–11
4. Levy CE et al. Effects of physical therapy delivery via home video telerehabilitation on functional and health-related quality of life outcomes. *JRRD* 2015; 52 (3): 361–370
5. The multiple sclerosis international federation. *Atlas of MS, 3rd Edition* 2020
6. Arneith BM. Multiple Sklerose: B-Zellen im Fokus von Pathophysiologie und Therapie. *Kompass Autoimmun* 2020; 2: 59–60
7. Hoffmann et al. Multiple Sklerose: Epidemiologie, Pathophysiologie, Diagnostik und Therapie. *Praktische Arbeitsmedizin* 2009; 17: 12–18
8. Reynolds ER et al. Multiple sclerosis and exercise: a literature review. *Curr Sports Med Rep* 2018; 17(1): 31–35
9. Kjølhede et al. Can resistance training impact MRI outcomes in relapsing-remitting multiple sclerosis? *Mult Scler* 2018; 24(10): 1356–1365
10. Paltamaa et al. Effects of physiotherapy interventions on balance in multiple sclerosis: a systematic review and meta-analysis of randomised controlled trials. *J Rehabil Med* 2012; 44(88): 23
11. Kalb et al. Exercise and lifestyle physical activity recommendations for people with multiple sclerosis throughout the disease course. *Mult Scler* 2020; 26(12): 1459–1469
12. Dalgas U et al. Multiple sclerosis and physical exercise: recommendations for the application of resistance-, endurance- and combined training. *Multiple Sclerosis* 2008; 14 (1): 35–53
13. Kersten S et al. Multiple Sklerose – Sportliches Training für Patienten. *Medical Sports Network* 2015; 10(4): 30–35
14. Zaenker P. High-intensity interval training combined with resistance training improves physiological capacities, strength and quality of life in multiple sclerosis patients: a pilot study. *Eur. J. Phys. Rehabil. Med* 2018; 54 (1): 58–67
15. Grubić Kezele T et al. Exploring the feasibility of a mild and short 4-week combined upper limb and breathing exercise program as a possible home base program to decrease fatigue and improve quality of life in ambulatory and non-ambulatory multiple sclerosis individuals. *Neurol Sciences* 2019; 40: 733–743

16. Khalil H et al. The development and pilot evaluation of virtual reality balance scenarios in people with multiple sclerosis (MS): A feasibility study. *NeuroRehabilitation* 2018; 43: 473–482
17. Schädler S et al. *Assessments in der Rehabilitation. Band 1: Neurologie. 3. Auflage.* Hans Huber: Hogrāfe 2011. Bern
18. Cuesta-Gómez A. Effects of virtual reality associated with serious games for upper limb rehabilitation in patients with multiple sclerosis: randomized controlled trial. *JNER* 2020; 17: 90
19. Xiang XM & Bernard J. Telehealth in multiple sclerosis, clinical care and research. *Curr Neurol Neurosci Rep* 2021; 21(4)
20. Moccia M et al. Assessing disability and relapses in multiple sclerosis on tele-neurology. *Neurol Sci* 2020; 41(6): 1369-1371
21. Alonso R et al. Experience of South American MS and/or NMOSD experts in practice during the COVID-19 pandemic: Focus on Telemedicine. *Mult Scler Relat Disord* 2021; 48
22. Di Tella S et al. Integrated telerehabilitation approach in multiple sclerosis: a systematic review and meta-analysis. *J Telemed Telecare* 2020; 26(7–8): 385–399
23. Hare M et al. Work Group Report: Covid-19: Unmasking Telemedicine. *J. jaip* 2020; 06.038
24. Roy B et al. Teleneurology during the COVID-19 pandemic: A step forward in modernizing medical care. *J. jns* 2020; 116930
25. Fiani B et al. Telerehabilitation: Development, Application, and Need for Increased Usage in the COVID-19 Era for Patients with Spinal Pathology. *Cureus* 2020; 12 (9): e10563

Schwerpunkt: Parkinson

Titel: Parkinson-Komplextherapie als essenzieller Baustein einer individualisierten Parkinson-Behandlung (S. 19–27)

Autoren: R. Scherbaum, L. Tönges

Literatur:

1. Dorsey ER et al. Global, regional, and national burden of Parkinson's disease, 1990–2016: a systematic analysis for the Global Burden of Disease Study 2016. *The Lancet Neurology* 2018; 17: 939–953
2. Heinzl S et al. Do We Need to Rethink the Epidemiology and Healthcare Utilization of Parkinson's Disease in Germany? *Front Neurol* 2018; 9: 500
3. Vlaanderen FP et al. The Voice of the Parkinson Customer. *J Parkinsons Dis* 2019; 9: 197–201
4. Bloem BR et al. Integrated and patient-centred management of Parkinson's disease: a network model for reshaping chronic neurological care. *Lancet Neurol* 2020; 19: 623–634
5. Bloem BR et al. Parkinson's disease. *The Lancet* 2021
6. Scherbaum R et al. Parkinson's Disease Multimodal Complex Treatment improves motor symptoms, depression and quality of life. *J Neurol* 2020; 267: 954–965
7. Richter D et al. Dynamics of Parkinson's Disease Multimodal Complex Treatment in Germany from 2010-2016: Patient Characteristics, Access to Treatment, and Formation of Regional Centers. *Cells* 2019; 8: 151
8. Witt K et al. Nichtmedikamentöse Therapieverfahren beim Morbus Parkinson. *Nervenarzt* 2017; 88: 383–390
9. Craig P et al. Developing and evaluating complex interventions: The new Medical Research Council guidance. *Int J Nurs Stud* 2013; 50: 587–592

10. Bundesinstitut für Arzneimittel und Medizinprodukte. OPS Version 2021: Kapitel 8: Nicht operative therapeutische Maßnahmen 2020
11. Rajan R et al. Integrated Care in Parkinson's Disease: A Systematic Review and Meta-Analysis. *Mov Disord* 2020; 35(9): 1509–1531
12. Titova N & Chaudhuri KR. Personalized medicine in Parkinson's disease: Time to be precise. *Mov Disord* 2017; 32: 1147–1154
13. Giladi N et al. Interdisciplinary teamwork for the treatment of people with Parkinson's disease and their families. *Curr Neurol Neurosci Rep* 2014; 14: 493
14. Qamar MA et al. Multidisciplinary Care in Parkinson's Disease. *Int Rev Neurobiol* 2017; 132: 511–523
15. The American Geriatrics Society Expert Panel on Person-Centered Care. Person-Centered Care: A Definition and Essential Elements. *J Am Geriatr Soc* 2016; 64: 15–18
16. Armstrong MJ & Okun MS. Diagnosis and Treatment of Parkinson Disease: A Review. *JAMA* 2020; 323: 548–560
17. Seppi K et al. Update on treatments for nonmotor symptoms of Parkinson's disease-an evidence-based medicine review. *Mov Disord* 2019; 34: 180–198
18. Keus SHJ et al. Europäische Physiotherapie-Leitlinie beim idiopathischen Parkinson-Syndrom 2015
19. Ebersbach G et al. Comparing exercise in Parkinson's disease--the Berlin LSVT®BIG study. *Mov Disord* 2010; 25: 1902–1908
20. Radder DLM et al. Physiotherapy in Parkinson's Disease: A Meta-Analysis of Present Treatment Modalities. *Neurorehabil Neural Repair* 2020; 34: 871–880
21. Nonnekes J et al. Compensation Strategies for Gait Impairments in Parkinson Disease: A Review. *JAMA Neurol* 2019; 76: 718–725
22. Ypinga JHL et al. Effectiveness and costs of specialised physiotherapy given via ParkinsonNet: A retrospective analysis of medical claims data. *The Lancet Neurology* 2018; 17: 153–161
23. Bouça-Machado R et al. Physical Activity, Exercise, and Physiotherapy in Parkinson's Disease: Defining the Concepts. *Movement Disorders Clinical Practice* 2019; 7: 7–15
24. Hirsch MA et al. Exercise-induced neuroplasticity in human Parkinson's disease: What is the evidence telling us? *Parkinsonism Relat Disord* 2016; 22(1): 78–81
25. Goodwin VA et al. The effectiveness of exercise interventions for people with Parkinson's disease: A systematic review and meta-analysis. *Mov Disord* 2008; 23: 631–640
26. Schenkman M et al. Effect of High-Intensity Treadmill Exercise on Motor Symptoms in Patients With De Novo Parkinson Disease: A Phase 2 Randomized Clinical Trial. *JAMA Neurol* 2018; 75: 219–226
27. Rafferty MR et al. Regular Exercise, Quality of Life, and Mobility in Parkinson's Disease: A Longitudinal Analysis of National Parkinson Foundation Quality Improvement Initiative Data. *J Parkinsons Dis* 2017; 7: 193–202
28. Fang X et al. Association of Levels of Physical Activity With Risk of Parkinson Disease: A Systematic Review and Meta-analysis. *JAMA Netw Open* 2018; 1: e182421
29. Sturkenboom IHWM et al. Guidelines for Occupational Therapy in Parkinson's Disease Rehabilitation 2011
30. Tofani M et al. Efficacy of Occupational Therapy Interventions on Quality of Life in Patients with Parkinson's Disease: A Systematic Review and Meta-Analysis. *Movement Disorders Clinical Practice* 2020; 7: 891–901

31. Sturkenboom et al. Efficacy of occupational therapy for patients with Parkinson's disease: a randomised controlled trial. *Lancet Neurology* 2014; 557–566
32. Kalf JG et al. Guidelines for speech-language therapy in Parkinson's disease 2011
33. Ramig L et al. Speech treatment in Parkinson's disease: Randomized controlled trial (RCT). *Mov Disord* 2018; 33: 1777–1791
34. Bloem BR et al. Nonpharmacological treatments for patients with Parkinson's disease. *Mov Disord* 2015; 30: 1504–1520
35. Radder DLM et al. Intensive inpatient rehabilitation for persons with Parkinson's disease: Last resort or pre-emptive strike? *Journal of Neurology, Neurosurgery, and Psychiatry* 2018; 89: 795–796
36. Knop M et al. Parkinson-Komplextherapie am Max-Planck-Institut für Psychiatrie: Ein multimodales, flexibles stationäres Therapieprogramm für kritische Krankheitsphasen. *Schweizer Zeitschrift für Psychiatrie & Neurologie* 2017; 17: 24–29
37. Müller T et al. Benefit on motor and non-motor behavior in a specialized unit for Parkinson's disease. *J Neural Transm* 2017; 124: 715–720
38. Hartelt E et al. Parkinson's Disease Multimodal Complex Treatment (PD-MCT): Analysis of Therapeutic Effects and Predictors for Improvement. *JCM* 2020: 9
39. Monticone M et al. In-patient multidisciplinary rehabilitation for Parkinson's disease: A randomized controlled trial. *Mov Disord* 2015; 30: 1050–1058
40. Ferrazzoli D et al. Efficacy of intensive multidisciplinary rehabilitation in Parkinson's disease: A randomised controlled study. *Journal of Neurology, Neurosurgery, and Psychiatry* 2018; 89: 828–835
41. Marumoto K et al. Inpatient Enhanced Multidisciplinary Care Effects on the Quality of Life for Parkinson Disease: A Quasi-Randomized Controlled Trial. *J Geriatr Psychiatry Neurol* 2019; 32: 186–194

Schwerpunkt: Epilepsie

Titel: Epilepsiechirurgie: Zu selten, zu spät. (S. 29–35)

Autoren: C. M. Boßelmann, M. Schreiber, S. Rona, D. Dennig, H. Lerche

Literatur:

1. Hesdorffer DC et al. Estimating risk for developing epilepsy: a population-based study in Rochester, Minnesota. *Neurology* 2011; **76**(1): 23–7
2. Devinsky O et al. Epilepsy. *Nat Rev Dis Primers* 2018; **4**: 18024
3. Tellez-Zenteno JF et al. Somatic comorbidity of epilepsy in the general population in Canada. *Epilepsia* 2005; **46**(12): 1955–62
4. Tellez-Zenteno JF et al. Psychiatric comorbidity in epilepsy: a population-based analysis. *Epilepsia* 2007; **48**(12): 2336–44
5. Helmstaedter C & Elger CE. Chronic temporal lobe epilepsy: a neurodevelopmental or progressively dementing disease? *Brain* 2009; **132**(Pt 10): 2822–30
6. Mahler B. et al. Risk for injuries and accidents in epilepsy: A prospective population-based cohort study. *Neurology* 2018; **90**(9): e779–e789
7. Wabila MM et al. Overall and cause-specific premature mortality in epilepsy: A systematic review. *Epilepsy Behav* 2018; **87**: 213–225
8. Ryvlin P et al. Risks and predictive biomarkers of sudden unexpected death in epilepsy patient. *Curr Opin Neurol* 2019; **32**(2): 205–212
9. Kwan P et al. Definition of drug resistant epilepsy: consensus proposal by the ad hoc Task Force of the ILAE Commission on Therapeutic Strategies. *Epilepsia* 2010; **51**(6): 1069–77

10. Kwan P & MJ Brodie. Early identification of refractory epilepsy. *N Engl J Med* 2000; **342**(5): 314–9
11. Chen Z et al. Treatment Outcomes in Patients With Newly Diagnosed Epilepsy Treated With Established and New Antiepileptic Drugs: A 30-Year Longitudinal Cohort Study. *JAMA Neurol* 2018; **75**(3): 279–286
12. Epilepsy surgery: Both underused and overhyped. *Epigraph*, Fall 2018; **20**
13. Elger CE & berkenfeld R. S1-Leitlinie Erster epileptischer Anfall und Epilepsien im Erwachsenenalter. 2017. Deutsche Gesellschaft für Neurologie, Leitlinien für Diagnostik und Therapie in der Neurologie 2017
14. Benbadis SR et al. Epilepsy surgery, delays and referral patterns-are all your epilepsy patients controlled? *Seizure* 2003; **12**(3): 167–70
15. Haneef Z et al. Referral pattern for epilepsy surgery after evidence-based recommendations: a retrospective study. *Neurology* 2010; **75**(8): 699–704
16. Hakimi AS et al. A survey of neurologists' views on epilepsy surgery and medically refractory epilepsy. *Epilepsy Behav* 2008; **13**(1): 96–101
17. Kumlien E & Mattsson P. Attitudes towards epilepsy surgery: A nationwide survey among Swedish neurologists. *Seizure* 2010; **19**(4): 253–5
18. Erba G et al. Barriers toward epilepsy surgery. A survey among practicing neurologists. *Epilepsia* 2012; **53**(1): 35–43
19. Roberts JI et al. Neurologists' knowledge of and attitudes toward epilepsy surgery: a national survey. *Neurology* 2015; **84**(2): 159–66
20. Steinbrenner M et al. Referral to evaluation for epilepsy surgery: Reluctance by epileptologists and patients. *Epilepsia* 2019; **60**(2): 211–219
21. Engel J. *Seizures and Epilepsy*. Oxford University Press 2013; 2
22. Perucca E & Tomson T. The pharmacological treatment of epilepsy in adults. *Lancet Neurol* 2011; **10**(5): 446–56
23. Perucca P & Gilliam FG. Adverse effects of antiepileptic drugs. *Lancet Neurol* 2012; **11**(9): 792–802
24. Luciano AL & Shorvon SD. Results of treatment changes in patients with apparently drug-resistant chronic epilepsy. *Ann Neurol* 2007; **62**(4): 375–81
25. Callaghan BC et al. Likelihood of seizure remission in an adult population with refractory epilepsy. *Ann Neurol* 2007; **62**(4): 382–9
26. Jehi L & Mathern GW. Who's responsible to refer for epilepsy surgery? We all are! *Neurology* 2015; **84**(2): 112–3
27. Steinhoff BJ & Staack AM. Wenn Epilepsiechirurgie die personalisierte Therapie der Wahl ist: Muss Pharmakoresistenz wirklich immer zwingend belegt werden? *Z. Epileptol* 2021; 2
28. Johannesen KM et al. Utility of genetic testing for therapeutic decision-making in adults with epilepsy. *Epilepsia* 2020; **61**(6): 1234–1239
29. Sanders M et al. Implications of genetic diagnostics in epilepsy surgery candidates: A single-center cohort study. *Epilepsia Open* 2019; **4**(4): 609–617
30. Martin R et al. Frequency of epilepsy in patients with psychogenic seizures monitored by video-EEG. *Neurology* 2003; **61**(12): 1791–2
31. Steriade C et al. Acute symptomatic seizures secondary to autoimmune encephalitis and autoimmune-associated epilepsy: Conceptual definitions. *Epilepsia* 2020; **61**(7): 1341–1351
32. Swarztrauber K et al. Patient attitudes about treatments for intractable epilepsy. *Epilepsy Behav* 2003; **4**(1): 19–25
33. Baca CB et al. Racial differences in patient expectations prior to resective epilepsy surgery. *Epilepsy Behav* 2009; **15**(4): 452–5
34. Prus N & Grant AC. Patient beliefs about epilepsy and brain surgery in a multicultural urban population. *Epilepsy Behav* 2010; **17**(1): 46–9
35. Choi H et al. Temporal lobe epilepsy surgery: what do patients want to know? *Epilepsy Behav* 2011; **22**(3): 479–82

36. Erba G et al. Acceptance of epilepsy surgery among adults with epilepsy – what do patients think? *Epilepsy Behav* 2012; **24**(3): 352–8
37. Hrazdil C et al. Patient perceptions and barriers to epilepsy surgery: evaluation in a large health region. *Epilepsy Behav* 2013; **28**(1): 52–65
38. Anderson CT et al. Epilepsy surgery: factors that affect patient decision-making in choosing or deferring a procedure. *Epilepsy Res Treat* 2013; **2013**: 309284
39. Kanner AM et al. Cognitive disorders in epilepsy I: Clinical experience, real-world evidence and recommendations. *Seizure* 2020; **83**: 216–222
40. Helmstaedter C et al. Chronic epilepsy and cognition: a longitudinal study in temporal lobe epilepsy. *Ann Neurol* 2003; **54**(4): 425–32
41. Sherman EM et al. Neuropsychological outcomes after epilepsy surgery: systematic review and pooled estimates. *Epilepsia* 2011; **52**(5): 857–69
42. Baxendale S et al. Indications and expectations for neuropsychological assessment in epilepsy surgery in children and adults: Executive summary of the report of the ILAE Neuropsychology Task Force Diagnostic Methods Commission: 2017–2021. *Epilepsia* 2019; **60**(9): 1794–1796
43. Wiebe S et al. A randomized, controlled trial of surgery for temporal-lobe epilepsy. *N Engl J Med* 2001; **345**(5): 311–8
44. Wiebe S. Effectiveness and safety of epilepsy surgery: what is the evidence? *CNS Spectr* 2004; **9**(2): 120–2, 126–32
45. Tanriverdi T et al. Morbidity in epilepsy surgery: an experience based on 2449 epilepsy surgery procedures from a single institution. *J Neurosurg* 2009; **110**(6): 1111–23
46. Sperling MR et al. A reappraisal of mortality after epilepsy surgery. *Neurology* 2016; **86**(21): 1938–44
47. Sheikh S et al. (Re)Defining success in epilepsy surgery: The importance of relative seizure reduction in patient-reported quality of life. *Epilepsia* 2019; **60**(10): 2078–2085
48. Punia V. et al. Quality of life before and after epilepsy surgery: Age is just a number. *Epilepsy Behav* 2020; **113**: 107574
49. French JA & Perucca E. Time to Start Calling Things by Their Own Names? The Case for Antiseizure Medicines. *Epilepsy Curr* 2020; **20**(2): 69–72