

Literaturverzeichnis

1. Agid Y (1998) Levodopa: is toxicity a myth? *Neurology* 50: 858-863.
2. Albin RL, Young AB, Penney JB (1995) The functional anatomy of disorders of the basal ganglia. *Trends Neurosci* 18: 63-64.
3. Alexander GE, Crutcher MD (1990) Functional architecture of basal ganglia circuits: neural substrates of parallel processing. *Trends Neurosci* 13: 266-271.
4. Benabid AL, Pollak P (2000) [Cost assessment of functional neurosurgery for abnormal movement by stimulation of the basal nuclei, particularly the subthalamic nucleus]. *Rev Neurol (Paris)* 156 Suppl 2 Pt 2: 270-273.
5. Benabid AL, Pollak P, Louveau A, Henry S, de Rougemont J (1987) Combined (thalamotomy and stimulation) stereotactic surgery of the VIM thalamic nucleus for bilateral Parkinson disease. *Appl Neurophysiol* 50: 344-346.
6. Bergman H, Feingold A, Nini A, Raz A, Slovin H, Abeles M, Vaadia E (1998) Physiological aspects of information processing in the basal ganglia of normal and parkinsonian primates. *Trends Neurosci* 21: 32-38.
7. Bergman H, Wichmann T, Karmon B, DeLong MR (1994) The primate subthalamic nucleus. II. Neuronal activity in the MPTP model of parkinsonism. *J Neurophysiol* 72: 507-520.
8. Betarbet R, Sherer TB, Greenamyre JT (2002) Animal models of Parkinson's disease. *Bioessays* 24: 308-318.
9. Bezard E, Brotchie JM, Gross CE (2001) Pathophysiology of levodopa-induced dyskinesia: potential for new therapies. *Nat Rev Neurosci* 2: 577-588.
10. Bohlen und Halbach O. (2004) Synucleins and their relationship to Parkinson's disease. *Cell Tissue Res* 318: 163-174.
11. Braak H, Rub U, Braak E (2000) [Neuroanatomy of Parkinson disease. Changes in the neuronal cytoskeleton of a few disease-susceptible types of neurons lead to progressive destruction of circumscribed areas in the limbic and motor systems]. *Nervenarzt* 71: 459-469.
12. Brooks AI, Chadwick CA, Gelbard HA, Cory-Slechta DA, Federoff HJ (1999) Paraquat elicited neurobehavioral syndrome caused by dopaminergic neuron loss. *Brain Res* 823: 1-10.
13. Bundesverband der pharmazeutischen Industrie. Rote Liste. Rote Liste Verlag Weinheim. 2001.
14. Burchiel KJ, Anderson VC, Favre J, Hammerstad JP (1999) Comparison of pallidal and subthalamic nucleus deep brain stimulation for advanced Parkinson's disease: results of a randomized, blinded pilot study. *Neurosurgery* 45: 1375-1382.
15. Chase TN, Engber TM, Mouradian MM (1994) Palliative and prophylactic benefits of continuously administered dopaminomimetics in Parkinson's disease. *Neurology* 44: S15-S18.
16. Dawson TM, Dawson VL (2003) Rare genetic mutations shed light on the pathogenesis of Parkinson disease. *J Clin Invest* 111: 145-151.
17. Deuschl G, Schade-Brittinger C, Krack P, Volkmann J, Schafer H, Botzel K, Daniels C, Deutschlander A, Dillmann U, Eisner W, Gruber D, Hamel W, Herzog J, Hilker R, Klebe S, Kloss M, Koy J, Krause M, Kupsch A, Lorenz D, Lorenzl S, Mehdorn HM, Moringlane JR, Oertel W, Pinsker MO, Reichmann H, Reuss A, Schneider GH, Schnitzler A, Steude U, Sturm V, Timmermann L, Tronnier V, Trottenberg T,

- Wojtecki L, Wolf E, Poewe W, Voges J (2006) A randomized trial of deep-brain stimulation for Parkinson's disease. *N Engl J Med* 355: 896-908.
18. Dodel RC, Singer M, Kohne-Volland R, Selzer R, Scholz W, Rathay B, Oertel WH (1997) [Cost of illness in Parkinson disease. A retrospective 3-month analysis of direct costs]. *Nervenarzt* 68: 978-984.
 19. Dodel RC, Singer M, Kohne-Volland R, Szucs T, Rathay B, Scholz E, Oertel WH (1998) The economic impact of Parkinson's disease. An estimation based on a 3-month prospective analysis. *Pharmacoeconomics* 14: 299-312.
 20. Drummond M, Torrance G, Mason J (1993) Cost-effectiveness league tables: more harm than good? *Soc Sci Med* 37: 33-40.
 21. Eichhorn TE, Oertel WH (2001) Macrogol 3350/electrolyte improves constipation in Parkinson's disease and multiple system atrophy. *Mov Disord* 16: 1176-1177.
 22. Eriksen JL, Wszolek Z, Petrucelli L (2005) Molecular pathogenesis of Parkinson disease. *Arch Neurol* 62: 353-357.
 23. Evers S, Obladen M (1994) [Epidemiology and therapy of Parkinson disease in inpatient nursing homes]. *Z Gerontol* 27: 270-275.
 24. Fearnley JM, Lees AJ (1991) Ageing and Parkinson's disease: substantia nigra regional selectivity. *Brain* 114 (Pt 5): 2283-2301.
 25. Garcia L, D'Alessandro G, Bioulac B, Hammond C (2005) High-frequency stimulation in Parkinson's disease: more or less? *Trends Neurosci* 28: 209-216.
 26. Golbe LI (1991) Young-onset Parkinson's disease: a clinical review. *Neurology* 41: 168-173.
 27. Hughes AJ, Bishop S, Kleedorfer B, Turjanski N, Fernandez W, Lees AJ, Stern GM (1993a) Subcutaneous apomorphine in Parkinson's disease: response to chronic administration for up to five years. *Mov Disord* 8: 165-170.
 28. Hughes AJ, Daniel SE, Blankson S, Lees AJ (1993b) A clinicopathologic study of 100 cases of Parkinson's disease. *Arch Neurol* 50: 140-148.
 29. Jellinger KA (1995) Neurodegenerative disorders with extrapyramidal features--a neuropathological overview. *J Neural Transm Suppl* 46: 33-57.
 30. Kishore A, Turnbull IM, Snow BJ, Fuente-Fernandez R, Schulzer M, Mak E, Yardley S, Calne DB (1997) Efficacy, stability and predictors of outcome of pallidotomy for Parkinson's disease. Six-month follow-up with additional 1-year observations. *Brain* 120 (Pt 5): 729-737.
 31. Krack P, Batir A, Van Blercom N, Chabardes S, Fraix V, Ardouin C, Koudsie A, Limousin PD, Benazzouz A, LeBas JF, Benabid AL, Pollak P (2003) Five-year follow-up of bilateral stimulation of the subthalamic nucleus in advanced Parkinson's disease. *N Engl J Med* 349: 1925-1934.
 32. Krack P, Hamel W, Mehdorn HM, Deuschl G (1999) Surgical treatment of Parkinson's disease. *Curr Opin Neurol* 12: 417-425.
 33. Krack P, Limousin P, Benabid AL, Pollak P (1997) Chronic stimulation of subthalamic nucleus improves levodopa-induced dyskinesias in Parkinson's disease. *Lancet* 350: 1676.
 34. Kumar R, Lozano AM, Kim YJ, Hutchison WD, Sime E, Halket E, Lang AE (1998a) Double-blind evaluation of subthalamic nucleus deep brain stimulation in advanced Parkinson's disease. *Neurology* 51: 850-855.
 35. Kumar R, Lozano AM, Montgomery E, Lang AE (1998b) Pallidotomy and deep brain stimulation of the pallidum and subthalamic nucleus in advanced Parkinson's disease. *Mov Disord* 13 Suppl 1: 73-82.

36. Lang AE, Lozano AM (1998a) Parkinson's disease. First of two parts. *N Engl J Med* 339: 1044-1053.
37. Lang AE, Lozano AM (1998b) Parkinson's disease. Second of two parts. *N Engl J Med* 339: 1130-1143.
38. Lang AE, Lozano AM, Montgomery E, Duff J, Tasker R, Hutchinson W (1997) Posteroventral medial pallidotomy in advanced Parkinson's disease. *N Engl J Med* 337: 1036-1042.
39. Langston JW, Ballard P, Tetrud JW, Irwin I (1983) Chronic Parkinsonism in humans due to a product of meperidine-analog synthesis. *Science* 219: 979-980.
40. LePen C, Wait S, Moutard-Martin F, Dujardin M, Ziegler M (1999) Cost of illness and disease severity in a cohort of French patients with Parkinson's disease. *Pharmacoeconomics* 16: 59-69.
41. LeWitt PA (1993) Neuroprotection by anti-oxidant strategies in Parkinson's disease. *Eur Neurol* 33 Suppl 1: 24-30.
42. Lilienfeld DE, Perl DP (1993) Projected neurodegenerative disease mortality in the United States, 1990-2040. *Neuroepidemiology* 12: 219-228.
43. Limousin P, Krack P, Pollak P, Benazzouz A, Ardouin C, Hoffmann D, Benabid AL (1998) Electrical stimulation of the subthalamic nucleus in advanced Parkinson's disease. *N Engl J Med* 339: 1105-1111.
44. Lozano AM, Lang AE, Levy R, Hutchison W, Dostrovsky J (2000) Neuronal recordings in Parkinson's disease patients with dyskinesias induced by apomorphine. *Ann Neurol* 47: S141-S146.
45. Magnin M, Morel A, Jeanmonod D (2000) Single-unit analysis of the pallidum, thalamus and subthalamic nucleus in parkinsonian patients. *Neuroscience* 96: 549-564.
46. Mandelblatt JS, Fryback DG, Weinstein MC, Russell LB, Gold MR (1997) Assessing the effectiveness of health interventions for cost-effectiveness analysis. Panel on Cost-Effectiveness in Health and Medicine. *J Gen Intern Med* 12: 551-558.
47. Marsden CD, Obeso JA (1994) The functions of the basal ganglia and the paradox of stereotaxic surgery in Parkinson's disease. *Brain* 117 (Pt 4): 877-897.
48. Marsden CD, Parkes JD (1977) Success and problems of long-term levodopa therapy in Parkinson's disease. *Lancet* 1: 345-349.
49. McIntyre CC, Savasta M, Walter BL, Vitek JL (2004) How does deep brain stimulation work? Present understanding and future questions. *J Clin Neurophysiol* 21: 40-50.
50. Meissner W, Trottenberg T, Klaffke S, Paul G, Kuhn AA, Arnold G, Einhaupl KM, Kupsch A (2001) [Apomorphine therapy versus deep brain stimulation. Clinical and economic aspects in patients with advanced Parkinson disease]. *Nervenarzt* 72: 924-927.
51. Mitchell IJ, Clarke CE, Boyce S, Robertson RG, Peggs D, Sambrook MA, Crossman AR (1989) Neural mechanisms underlying parkinsonian symptoms based upon regional uptake of 2-deoxyglucose in monkeys exposed to 1-methyl-4-phenyl-1,2,3,6-tetrahydropyridine. *Neuroscience* 32: 213-226.
52. Miyawaki E, Lyons K, Pahwa R, Troster AI, Hubble J, Smith D, Busenbark K, McGuire D, Michalek D, Koller WC (1997) Motor complications of chronic levodopa therapy in Parkinson's disease. *Clin Neuropharmacol* 20: 523-530.
53. Moro E, Scerrati M, Romito LM, Roselli R, Tonali P, Albanese A (1999) Chronic subthalamic nucleus stimulation reduces medication requirements in Parkinson's disease. *Neurology* 53: 85-90.
54. Mouradian MM, Juncos JL, Fabbrini G, Schlegel J, Bartko JJ, Chase TN (1988) Motor fluctuations in Parkinson's disease: central pathophysiological mechanisms, Part II. *Ann Neurol* 24: 372-378.

55. Muller T, Dodel R, Fritze J (2006) [Cost and quality aspects in the treatment of Parkinson's disease]. Z Arztl Fortbild Qualitatssich 100: 291-295.
56. Narabayashi H, Yokochi F, Nakajima Y (1984) Levodopa-induced dyskinesia and thalamotomy. J Neurol Neurosurg Psychiatry 47: 831-839.
57. Obeso JA, Rodriguez-Oroz M, Marin C, Alonso F, Zamarbide I, Lanciego JL, Rodriguez-Diaz M (2004) The origin of motor fluctuations in Parkinson's disease: importance of dopaminergic innervation and basal ganglia circuits. Neurology 62: S17-S30.
58. Obeso JA, Rodriguez-Oroz MC, Rodriguez M, DeLong MR, Olanow CW (2000) Pathophysiology of levodopa-induced dyskinesias in Parkinson's disease: problems with the current model. Ann Neurol 47: S22-S32.
59. Okun MS, Foote KD (2005) Subthalamic nucleus vs globus pallidus interna deep brain stimulation, the rematch: will pallidal deep brain stimulation make a triumphant return? Arch Neurol 62: 533-536.
60. Parkinson Study Group (2000) Pramipexole vs levodopa as initial treatment for Parkinson disease: A randomized controlled trial. Parkinson Study Group. JAMA 284: 1931-1938.
61. Rajput AH, Rozdilsky B, Rajput A (1991) Accuracy of clinical diagnosis in parkinsonism--a prospective study. Can J Neurol Sci 18: 275-278.
62. Rascol O, Brooks DJ, Korczyn AD, De Deyn PP, Clarke CE, Lang AE (2000) A five-year study of the incidence of dyskinesia in patients with early Parkinson's disease who were treated with ropinirole or levodopa. 056 Study Group. N Engl J Med 342: 1484-1491.
63. Rascol O, Goetz C, Koller W, Poewe W, Sampaio C (2002) Treatment interventions for Parkinson's disease: an evidence based assessment. Lancet 359: 1589-1598.
64. Rinne UK, Bracco F, Chouza C, Dupont E, Gershnik O, Marti Masso JF, Montastruc JL, Marsden CD (1998) Early treatment of Parkinson's disease with cabergoline delays the onset of motor complications. Results of a double-blind levodopa controlled trial. The PKDS009 Study Group. Drugs 55 Suppl 1: 23-30.
65. Rodriguez-Oroz MC, Gorospe A, Guridi J, Ramos E, Linazasoro G, Rodriguez-Palmero M, Obeso JA (2000) Bilateral deep brain stimulation of the subthalamic nucleus in Parkinson's disease. Neurology 55: S45-S51.
66. Rodriguez-Oroz MC, Obeso JA, Lang AE, Houeto JL, Pollak P, Rehncrona S, Kulisevsky J, Albanese A, Volkmann J, Hariz MI, Quinn NP, Speelman JD, Guridi J, Zamarbide I, Gironell A, Molet J, Pascual-Sedano B, Pidoux B, Bonnet AM, Agid Y, Xie J, Benabid AL, Lozano AM, Saint-Cyr J, Romito L, Contarino MF, Scerrati M, Fraix V, Van Blercom N (2005) Bilateral deep brain stimulation in Parkinson's disease: a multicentre study with 4 years follow-up. Brain 128: 2240-2249.
67. Rubenstein LM, Chrischilles EA, Voelker MD (1997) The impact of Parkinson's disease on health status, health expenditures, and productivity. Estimates from the National Medical Expenditure Survey. Pharmacoeconomics 12: 486-498.
68. Sage JI, Sonsalla PK, McHale DM, Heikkila RE, Duvoisin RC (1990) Clinical experience with duodenal infusions of levodopa for the treatment of motor fluctuations in Parkinson's disease. Adv Neurol 53: 383-386.
69. Scott R, Gregory R, Hines N, Carroll C, Hyman N, Papanasstasiou V, Leather C, Rowe J, Silburn P, Aziz T (1998) Neuropsychological, neurological and functional outcome following pallidotomy for Parkinson's disease. A consecutive series of eight simultaneous bilateral and twelve unilateral procedures. Brain 121 (Pt 4): 659-675.
70. Shoulson I (1992) An interim report of the effect of selegiline (L-deprenyl) on the progression of disability in early Parkinson's disease. The Parkinson Study Group. Eur Neurol 32 Suppl 1: 46-53.

71. Speelman JD, Esselink RA, Schuurman PR, de Bie RM, Bosch DA (2001) [Stereotaxic neurosurgery for treatment of Parkinson disease]. *Ned Tijdschr Geneeskd* 145: 853-858.
72. Spottke AE, Reuter M, Machat O, Bornschein B, von Campenhausen S, Berger K, Koehne-Volland R, Rieke J, Simonow A, Brandstaedter D, Siebert U, Oertel WH, Ulm G, Dodel R (2005) Cost of illness and its predictors for Parkinson's disease in Germany. *Pharmacoeconomics* 23: 817-836.
73. Spottke EA, Volkmann J, Lorenz D, Krack P, Smala AM, Sturm V, Gerstner A, Berger K, Hellwig D, Deuschl G, Freund HJ, Oertel WH, Dodel RC (2002) Evaluation of healthcare utilization and health status of patients with Parkinson's disease treated with deep brain stimulation of the subthalamic nucleus. *J Neurol* 249: 759-766.
74. Stocchi F, Olanow CW (2003) Neuroprotection in Parkinson's disease: clinical trials. *Ann Neurol* 53 Suppl 3: S87-S97.
75. Sweet RD, McDowell FH (1975) Five years' treatment of Parkinson's disease with levodopa. Therapeutic results and survival of 100 patients. *Ann Intern Med* 83: 456-463.
76. Tasker RR, Siqueira J, Hawrylyshyn P, Organ LW (1983) What happened to VIM thalamotomy for Parkinson's disease? *Appl Neurophysiol* 46: 68-83.
77. Tomaszewski KJ, Holloway RG (2001) Deep brain stimulation in the treatment of Parkinson's disease: a cost-effectiveness analysis. *Neurology* 57: 663-671.
78. Torrance GW, Feeny D (1989) Utilities and quality-adjusted life years. *Int J Technol Assess Health Care* 5: 559-575.
79. Twelves D, Perkins KS, Counsell C (2003) Systematic review of incidence studies of Parkinson's disease. *Mov Disord* 18: 19-31.
80. Volkmann J, Allert N, Voges J, Weiss PH, Freund HJ, Sturm V (2001) Safety and efficacy of pallidal or subthalamic nucleus stimulation in advanced PD. *Neurology* 56: 548-551.
81. von Campenhausen S, Bornschein B, Wick R, Botzel K, Sampaio C, Poewe W, Oertel W, Siebert U, Berger K, Dodel R (2005) Prevalence and incidence of Parkinson's disease in Europe. *Eur Neuropsychopharmacol* 15: 473-490.
82. Wichmann T, DeLong MR (1993) Pathophysiology of parkinsonian motor abnormalities. *Adv Neurol* 60: 53-61.