

9.- BIBLIOGRAFIA

- (1) Netter F.H. The CIBA collection of Medical illustration. Volume I ,Nervous system. 1980. CIBA.

Ref Type: Generic

- (2) Bering EA, Jr. Cerebrospinal fluid production and its relationship to cerebral metabolism and cerebral blood flow. *Am J Physiol* 1959; 197:825-828.
- (3) Sonnenberg H, Solomon S, Frazier DT. Sodium and chloride movement into the central canal of cat spinal cord. *Proc Soc Exp Biol Med* 1967; 124(4):1316-1320.
- (4) Mokri B. The Monro-Kellie hypothesis: applications in CSF volume depletion. *Neurology* 2001; 56(12):1746-1748.
- (5) Neff S, Subramaniam RP. Monro-Kellie doctrine. *J Neurosurg* 1996; 85(6):1195.
- (6) Stern WE. Intracranial fluid dynamic: The relationship of intracranial pressure to the Monro-Kellie doctrine and the reliability of pressure assessment. *J R Coll Surg Edinb* 1963; 168:18-36.
- (7) Sahuquillo J, Rubio E, Codina A, Molins A, Guitart JM, Poca MA et al. Reappraisal of the intracranial pressure and cerebrospinal fluid dynamics in patients with the so-called "normal pressure hydrocephalus" syndrome. *Acta Neurochir (Wien)* 1991; 112(1-2):50-61.
- (8) Murillo Cabezas F, Muñoz Sanchez A. Traumatismo craneoencefálico grave. In: VV.AA, editor. *Terapia intensiva*. Buenos Aires: Editorial Medica Panamericana, 2000: 224-244.
- (9) duBoulay G, MONSON EM. TELECINE TECHNIQUE APPLIED TO NEURORADIOLOGY. *Br J Radiol* 1964; 34:814-818.
- (10) Lane B, Kricheff II. Cerebrospinal fluid pulsations at myelography: a videodensitometric study. *Radiology* 1974; 110(3):579-587.
- (11) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.

- (12) Edelman RR, Wedeen VJ, Davis KR, Widder D, Hahn P, Shoukimas G et al. Multiphasic MR imaging: a new method for direct imaging of pulsatile CSF flow. *Radiology* 1986; 161(3):779-783.
- (13) Feinberg DA, Crooks LE, Sheldon P, Hoenninger J, III, Watts J, Arakawa M. Magnetic resonance imaging the velocity vector components of fluid flow. *Magn Reson Med* 1985; 2(6):555-566.
- (14) Njemanze PC, Beck OJ. MR-gated intracranial CSF dynamics: evaluation of CSF pulsatile flow
20. *AJNR Am J Neuroradiol* 1989; 10(1):77-80.
- (15) Feinberg DA, Mark AS. Human brain motion and cerebrospinal fluid circulation demonstrated with MR velocity imaging. *Radiology* 1987; 163(3):793-799.
- (16) Edelman RR, Mattle HP, Kleefeld J, Silver MS. Quantification of blood flow with dynamic MR imaging and presaturation bolus tracking
22. *Radiology* 1989; 171(2):551-556.
- (17) Axel L, Dougherty L. MR imaging of motion with spatial modulation of magnetization
11. *Radiology* 1989; 171(3):841-845.
- (18) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.
- (19) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.
- (20) Enzmann DR, Pelc NJ. Normal flow patterns of intracranial and spinal cerebrospinal fluid defined with phase-contrast cine MR imaging
10. *Radiology* 1991; 178(2):467-474.
- (21) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.

- (22) Quencer RM, Post MJ, Hinks RS. Cine MR in the evaluation of normal and abnormal CSF flow: intracranial and intraspinal studies
3. *Neuroradiology* 1990; 32(5):371-391.
- (23) Spraggins TA. Wireless retrospective gating: application to cine cardiac imaging. *Magn Reson Imaging* 1990; 8(6):675-681.
- (24) Enzmann DR, Pelc NJ. Normal flow patterns of intracranial and spinal cerebrospinal fluid defined with phase-contrast cine MR imaging
10. *Radiology* 1991; 178(2):467-474.
- (25) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.
- (26) Van Der Knaap MS, Valk J. Classification of congenital abnormalities of the CNS. *AJNR Am J Neuroradiol* 1988; 9(2):315-326.
- (27) Katzman R. Normal pressure hydrocephalus
6. *Contemp Neurol Ser* 1977; 15:69-92.
- (28) Lobato RD, Lamas E, Cordobes F, Munoz MJ, Roger R. Chronic adult hydrocephalus due to uncommon causes. *Acta Neurochir (Wien)* 1980; 55(1-2):85-97.
- (29) Sahuquillo J, Rubio E, Poca MA, Molins A, Codina A. Alteraciones de la Hidrodinámica del líquido cefalorraquídeo. Hipertensión intracraneal. Hidrocefalia. In: Codina A, editor. *Tratado de Neurología*. Barcelona: ELA, 1994: 561-572.
- (30) Albeck MJ, Skak C, Nielsen PR, Olsen KS, Borgesen SE, Gjerris F. Age dependency of resistance to cerebrospinal fluid outflow. *J Neurosurg* 1998; 89(2):275-278.
- (31) Poca MA, Sahuquillo J, Mataro M. Update on diagnosis and treatment of normotensive hydrocephalus (chronic hydrocephalus of the adult). *Neurologia* 2001; 16(8):353-369.
- (32) Hakim S. Algunas observaciones sobre la presión del LCR. Síndrome hidrocefálico en el adulto con presión normal del LCR. *Fscultad de Medicina, Universidad Javeriana, Bogota, 1964.*

- (33) Hakim S, ADAMS RD. The special clinical problem of symptomatic hydrocephalus with normal cerebrospinal fluid pressure. Observations on cerebrospinal fluid hydrodynamics. *J Neurol Sci* 1965; 2(4):307-327.
- (34) Hakim S, ADAMS RD. The special clinical problem of symptomatic hydrocephalus with normal cerebrospinal fluid pressure. Observations on cerebrospinal fluid hydrodynamics. *J Neurol Sci* 1965; 2(4):307-327.
- (35) Drapkin AJ, Sahar A. Experimental hydrocephalus: cerebrospinal fluid dynamics and ventricular distensibility during early stages. *Childs Brain* 1978; 4(5):278-288.
- (36) Sahar A. Experimental progressive hydrocephalus in the young animal. *Childs Brain* 1979; 5(1):14-23.
- (37) Holodny AI, George AE, de Leon MJ, Golomb J, Kalnin AJ, Cooper PR. Focal dilation and paradoxical collapse of cortical fissures and sulci in patients with normal-pressure hydrocephalus. *J Neurosurg* 1998; 89(5):742-747.
- (38) Kitagaki H, Mori E, Ishii K, Yamaji S, Hirono N, Imamura T. CSF spaces in idiopathic normal pressure hydrocephalus: morphology and volumetry. *AJNR Am J Neuroradiol* 1998; 19(7):1277-1284.
- (39) Boon AJ, Tans JT, Delwel EJ, Egeler-Peerdeman SM, Hanlo PW, Wurzer HA et al. Dutch Normal-Pressure Hydrocephalus Study: the role of cerebrovascular disease. *J Neurosurg* 1999; 90(2):221-226.
- (40) Boon AJ, Tans JT, Delwel EJ, Egeler-Peerdeman SM, Hanlo PW, Wurzer HA et al. The Dutch normal-pressure hydrocephalus study. How to select patients for shunting? An analysis of four diagnostic criteria. *Surg Neurol* 2000; 53(3):201-207.
- (41) Bradley WG, Quencer RM. Hydrocephalus, atrophy and intracranial CSF flow. In: Stark D, Bradley WG, editors. *Magnetic Resonance Imaging*. St. Louis: Mottsb Year Book, 1992.
- (42) Krauss JK, Regel JP, Vach W, Droste DW, Borremans JJ, Mergner T. Vascular risk factors and arteriosclerotic disease in idiopathic normal-pressure hydrocephalus of the elderly. *Stroke* 1996; 27(1):24-29.
- (43) Krauss JK, Regel JP, Vach W, Droste DW, Borremans JJ, Mergner T. Vascular risk factors and arteriosclerotic disease in idiopathic normal-pressure hydrocephalus of the elderly. *Stroke* 1996; 27(1):24-29.
- (44) Qureshi AI, Williams MA, Razumovsky AY, Hanley DF. Magnetic resonance imaging, unstable intracranial pressure and clinical outcome in patients with normal pressure hydrocephalus. *Acta Neurochir Suppl (Wien)* 1998; 71:354-356.

- (45) Tsunoda A, Mitsuoka H, Bandai H, Endo T, Arai H, Sato K. Intracranial cerebrospinal fluid measurement studies in suspected idiopathic normal pressure hydrocephalus, secondary normal pressure hydrocephalus, and brain atrophy. *J Neurol Neurosurg Psychiatry* 2002; 73(5):552-555.
- (46) Yoshihara M, Tsunoda A, Sato K, Kanayama S, Calderon A. Differential diagnosis of NPH and brain atrophy assessed by measurement of intracranial and ventricular CSF volume with 3D FASE MRI. *Acta Neurochir Suppl (Wien)* 1998; 71:371-374.
- (47) Henry-Feugeas MC, Idy-Peretti I, Baledent O, Poncelet-Didon A, Zannoli G, Bittoun J et al. Origin of subarachnoid cerebrospinal fluid pulsations: a phase-contrast MR analysis. *Magn Reson Imaging* 2000; 18(4):387-395.
- (48) Levy LM, Di Chiro G. MR phase imaging and cerebrospinal fluid flow in the head and spine. *Neuroradiology* 1990; 32(5):399-406.
- (49) Enzmann DR, Pelc NJ. Normal flow patterns of intracranial and spinal cerebrospinal fluid defined with phase-contrast cine MR imaging. *Radiology* 1991; 178(2):467-474.
- (50) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.
- (51) Enzmann DR, Pelc NJ. Brain motion: measurement with phase-contrast MR imaging. *Radiology* 1992; 185(3):653-660.
- (52) Barkhof F, Kouwenhoven M, Scheltens P, Sprenger M, Algra P, Valk J. Phase-contrast cine MR imaging of normal aqueductal CSF flow. Effect of aging and relation to CSF void on modulus MR. *Acta Radiol* 1994; 35(2):123-130.
- (53) Bhadelia RA, Bogdan AR, Wolpert SM. Analysis of cerebrospinal fluid flow waveforms with gated phase-contrast MR velocity measurements. *AJNR Am J Neuroradiol* 1995; 16(2):389-400.
- (54) Bhadelia RA, Bogdan AR, Kaplan RF, Wolpert SM. Cerebrospinal fluid pulsation amplitude and its quantitative relationship to cerebral blood flow pulsations: a phase-contrast MR flow imaging study. *Neuroradiology* 1997; 39(4):258-264.
- (55) Enzmann DR, Pelc NJ. Cerebrospinal fluid flow measured by phase-contrast cine MR. *AJNR Am J Neuroradiol* 1993; 14(6):1301-1307.
- (56) Henry-Feugeas MC, Idy-Peretti I, Blanchet B, Hassine D, Zannoli G, Schouman-Claeys E. Temporal and spatial assessment of normal cerebrospinal

- fluid dynamics with MR imaging. *Magn Reson Imaging* 1993; 11(8):1107-1118.
- (57) Katayama S, Asari S, Ohmoto T. Quantitative measurement of normal and hydrocephalic cerebrospinal fluid flow using phase contrast cine MR imaging. *Acta Med Okayama* 1993; 47(3):157-168.
- (58) Naidich TP, Altman NR, Gonzalez-Arias SM. Phase contrast cine magnetic resonance imaging: normal cerebrospinal fluid oscillation and applications to hydrocephalus. *Neurosurg Clin N Am* 1993; 4(4):677-705.
- (59) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.
- (60) Barkhof F, Kouwenhoven M, Scheltens P, Sprenger M, Algra P, Valk J. Phase-contrast cine MR imaging of normal aqueductal CSF flow. Effect of aging and relation to CSF void on modulus MR. *Acta Radiol* 1994; 35(2):123-130.
- (61) Bhadelia RA, Bogdan AR, Wolpert SM. Analysis of cerebrospinal fluid flow waveforms with gated phase-contrast MR velocity measurements. *AJNR Am J Neuroradiol* 1995; 16(2):389-400.
- (62) Bhadelia RA, Bogdan AR, Kaplan RF, Wolpert SM. Cerebrospinal fluid pulsation amplitude and its quantitative relationship to cerebral blood flow pulsations: a phase-contrast MR flow imaging study. *Neuroradiology* 1997; 39(4):258-264.
- (63) Enzmann DR, Pelc NJ. Cerebrospinal fluid flow measured by phase-contrast cine MR. *AJNR Am J Neuroradiol* 1993; 14(6):1301-1307.
- (64) Henry-Feugeas MC, Idy-Peretti I, Baledent O, Cornu P, Lejay H, Bittoun J et al. Cerebrospinal fluid flow waveforms: MR analysis in chronic adult hydrocephalus. *Invest Radiol* 2001; 36(3):146-154.
- (65) Hofmann E, Warmuth-Metz M, Bendszus M, Solymosi L. Phase-contrast MR imaging of the cervical CSF and spinal cord: volumetric motion analysis in patients with Chiari I malformation. *AJNR Am J Neuroradiol* 2000; 21(1):151-158.
- (66) Kim DS, Choi JU, Huh R, Yun PH, Kim DI. Quantitative assessment of cerebrospinal fluid hydrodynamics using a phase-contrast cine MR image in hydrocephalus. *Childs Nerv Syst* 1999; 15(9):461-467.
- (67) Mase M, Yamada K, Banno T, Miyachi T, Ohara S, Matsumoto T. Quantitative analysis of CSF flow dynamics using MRI in normal pressure hydrocephalus. *Acta Neurochir Suppl (Wien)* 1998; 71:350-353.

- (68) Rekte HL, Olivero W. Resistance elements within the cerebrospinal fluid circulation. In: Gjerris F, et al, editors. Outflow of cerebrospinal fluid. Copenhagen: Nunksgaard, 1989: 45-53.
- (69) Poca MA, Sahuquillo J, Ibañez J, Rubio E. Estudio de la dinámica del líquido cefalorraquídeo en el diagnóstico de la hidrocefalia crónica del adulto. In: Vazquez-Baquero A, Poca MA, Martin R, editors. Hidrocefalia cronca del adulto. Cantabria: 2001: 103-122.
- (70) Marmarou A. Measurement of resistance to outflow: the bolus injection method. In: Gjerris F, et al, editors. Outflow of cerebrospinal fluid. Copenhagen: Nunksgaard, 1989: 146-147.
- (71) Katzman R, Hussey F. A simple constant-infusion manometric test for measurement of CSF absorption. I. Rationale and method. *Neurology* 1970; 20(6):534-544.
- (72) Albeck MJ, Skak C, Nielsen PR, Olsen KS, Borgesen SE, Gjerris F. Age dependency of resistance to cerebrospinal fluid outflow. *J Neurosurg* 1998; 89(2):275-278.
- (73) Ekstedt J. CSF hydrodynamic studies in man. 1. Method of constant pressure CSF infusion. *J Neurol Neurosurg Psychiatry* 1977; 40(2):105-119.
- (74) Marmarou A, Shulman K, LaMorgese J. Compartmental analysis of compliance and outflow resistance of the cerebrospinal fluid system
1. *J Neurosurg* 1975; 43(5):523-534.
- (75) Wikkelso C, Andersson H, Blomstrand C, Lindqvist G. The clinical effect of lumbar puncture in normal pressure hydrocephalus
2. *J Neurol Neurosurg Psychiatry* 1982; 45(1):64-69.
- (76) Black PM. Idiopathic normal-pressure hydrocephalus. Results of shunting in 62 patients. *J Neurosurg* 1980; 52(3):371-377.
- (77) Greenberg JO, Shenkin HA, Adam R. Idiopathic normal pressure hydrocephalus-- a report of 73 patients. *J Neurol Neurosurg Psychiatry* 1977; 40(4):336-341.
- (78) Jacobs L, Conti D, Kinkel WR, Manning EJ. "Normal-pressure" hydrocephalus. Relationship of clinical and radiographic findings to improvement following shunt surgery. *JAMA* 1976; 235(5):510-512.
- (79) Krauss JK, Regel JP, Vach W, Droste DW, Borremans JJ, Mergner T. Vascular risk factors and arteriosclerotic disease in idiopathic normal-pressure hydrocephalus of the elderly. *Stroke* 1996; 27(1):24-29.

- (80) Vanneste J, Augustijn P, Dirven C, Tan WF, Goedhart ZD. Shunting normal-pressure hydrocephalus: do the benefits outweigh the risks? A multicenter study and literature review. *Neurology* 1992; 42(1):54-59.
- (81) Vanneste JA. Three decades of normal pressure hydrocephalus: are we wiser now? *J Neurol Neurosurg Psychiatry* 1994; 57(9):1021-1025.
- (82) Lamas E, Lobato RD. Intraventricular pressure and CSF dynamics in chronic adult hydrocephalus. *Surg Neurol* 1979; 12(4):287-295.
- (83) Krauss JK, Regel JP, Vach W, Droste DW, Borremans JJ, Mergner T. Vascular risk factors and arteriosclerotic disease in idiopathic normal-pressure hydrocephalus of the elderly. *Stroke* 1996; 27(1):24-29.
- (84) Chawla JC, Hulme A, Cooper R. Intracranial pressure in patients with dementia and communicating hydrocephalus. *J Neurosurg* 1974; 40(3):376-380.
- (85) Borgesen SE. Conductance to outflow of CSF in normal pressure hydrocephalus. *Acta Neurochir (Wien)* 1984; 71(1-2):1-45.
- (86) Belloni G, di Rocco C, Focacci C, Galli G, Maira G, Rossi GF. Surgical indications in normotensive hydrocephalus. A retrospective analysis of the relations of some diagnostic findings to the results of surgical treatment. *Acta Neurochir (Wien)* 1976; 33(1-2):1-21.
- (87) Bradley WG, Jr., Scalzo D, Queralt J, Nitz WN, Atkinson DJ, Wong P. Normal-pressure hydrocephalus: evaluation with cerebrospinal fluid flow measurements at MR imaging. *Radiology* 1996; 198(2):523-529.
- (88) Egeler-Peerdeman SM, Barkhof F, Walchenbach R, Valk J. Cine phase-contrast MR imaging in normal pressure hydrocephalus patients: relation to surgical outcome. *Acta Neurochir Suppl (Wien)* 1998; 71:340-342.
- (89) Enzmann DR, Pelc NJ. Normal flow patterns of intracranial and spinal cerebrospinal fluid defined with phase-contrast cine MR imaging. *Radiology* 1991; 178(2):467-474.
- (90) Nitz WR, Bradley WG, Jr., Watanabe AS, Lee RR, Burgoyne B, O'Sullivan RM et al. Flow dynamics of cerebrospinal fluid: assessment with phase-contrast velocity MR imaging performed with retrospective cardiac gating. *Radiology* 1992; 183(2):395-405.
- (91) Hopf NJ, Grunert P, Fries G, Resch KD, Perneczky A. Endoscopic third ventriculostomy: outcome analysis of 100 consecutive procedures. *Neurosurgery* 1999; 44(4):795-804.

- (92) Buxton N, Ho KJ, Macarthur D, Vloeberghs M, Punt J, Robertson I. Neuroendoscopic third ventriculostomy for hydrocephalus in adults: report of a single unit's experience with 63 cases. *Surg Neurol* 2001; 55(2):74-78.
- (93) Buxton N, Macarthur D, Mallucci C, Punt J, Vloeberghs M. Neuroendoscopic third ventriculostomy in patients less than 1 year old. *Pediatr Neurosurg* 1998; 29(2):73-76.
- (94) Duffner F, Schiffbauer H, Glemser D, Skalej M, Freudenstein D. Anatomy of the cerebral ventricular system for endoscopic neurosurgery: a magnetic resonance study. *Acta Neurochir (Wien)* 2003; 145(5):359-368.
- (95) Meier U, Zeilinger FS, Schonherr B. Endoscopic ventriculostomy versus shunt operation in normal pressure hydrocephalus: diagnostics and indication. *Minim Invasive Neurosurg* 2000; 43(2):87-90.
- (96) Resch KD, Pernecky A, Tschabitscher M, Kindel S. Endoscopic anatomy of the ventricles. *Acta Neurochir Suppl (Wien)* 1994; 61:57-61.
- (97) Godefroy O. [Functional anatomy of the third ventricle. Neuropsychological data]. *Neurochirurgie* 2000; 46(3):175-187.
- (98) Morota N, Watabe T, Inukai T, Hongo K, Nakagawa H. Anatomical variants in the floor of the third ventricle; implications for endoscopic third ventriculostomy. *J Neurol Neurosurg Psychiatry* 2000; 69(4):531-534.
- (99) Cinalli G, Sainte-Rose C, Chumas P, Zerah M, Brunelle F, Lot G et al. Failure of third ventriculostomy in the treatment of aqueductal stenosis in children. *J Neurosurg* 1999; 90(3):448-454.
- (100) Buxton N, Macarthur D, Mallucci C, Punt J, Vloeberghs M. Neuroendoscopic third ventriculostomy in patients less than 1 year old. *Pediatr Neurosurg* 1998; 29(2):73-76.
- (101) Buxton N, Ho KJ, Macarthur D, Vloeberghs M, Punt J, Robertson I. Neuroendoscopic third ventriculostomy for hydrocephalus in adults: report of a single unit's experience with 63 cases. *Surg Neurol* 2001; 55(2):74-78.
- (102) Cinalli G, Sainte-Rose C, Chumas P, Zerah M, Brunelle F, Lot G et al. Failure of third ventriculostomy in the treatment of aqueductal stenosis in children. *J Neurosurg* 1999; 90(3):448-454.
- (103) Fukuhara T, Vorster SJ, Ruggieri P, Luciano MG. Third ventriculostomy patency: comparison of findings at cine phase-contrast MR imaging and at direct exploration. *AJNR Am J Neuroradiol* 1999; 20(8):1560-1566.

- (104) Fukuhara T, Vorster SJ, Luciano MG. Risk factors for failure of endoscopic third ventriculostomy for obstructive hydrocephalus. *Neurosurgery* 2000; 46(5):1100-1109.
- (105) Hopf NJ, Grunert P, Fries G, Resch KD, Perneczky A. Endoscopic third ventriculostomy: outcome analysis of 100 consecutive procedures. *Neurosurgery* 1999; 44(4):795-804.
- (106) Jones RF, Stening WA, Brydon M. Endoscopic third ventriculostomy. *Neurosurgery* 1990; 26(1):86-91.
- (107) Tisell M, Almstrom O, Stephensen H, Tullberg M, Wikkelso C. How effective is endoscopic third ventriculostomy in treating adult hydrocephalus caused by primary aqueductal stenosis? *Neurosurgery* 2000; 46(1):104-110.
- (108) Vandertop WP, Verdaasdonk RM, van Swol CF. Laser-assisted neuroendoscopy using a neodymium-yttrium aluminum garnet or diode contact laser with pretreated fiber tips
53. *J Neurosurg* 1998; 88(1):82-92.
- (109) Oka K, Go Y, Kin Y, Utsunomiya H, Tomonaga M. The radiographic restoration of the ventricular system after third ventriculostomy. *Minim Invasive Neurosurg* 1995; 38(4):158-162.
- (110) Schwartz TH, Ho B, Prestigiacomo CJ, Bruce JN, Feldstein NA, Goodman RR. Ventricular volume following third ventriculostomy. *J Neurosurg* 1999; 91(1):20-25.
- (111) Fukuhara T, Vorster SJ, Ruggieri P, Luciano MG. Third ventriculostomy patency: comparison of findings at cine phase-contrast MR imaging and at direct exploration. *AJNR Am J Neuroradiol* 1999; 20(8):1560-1566.
- (112) Enzmann DR, Pelc NJ. Normal flow patterns of intracranial and spinal cerebrospinal fluid defined with phase-contrast cine MR imaging
10. *Radiology* 1991; 178(2):467-474.
- (113) Fischbein NJ, Ciricillo SF, Barr RM, McDermott M, Edwards MS, Geary S et al. Endoscopic third ventriculocisternostomy: MR assessment of patency with 2-D cine phase-contrast versus T2-weighted fast spin echo technique. *Pediatr Neurosurg* 1998; 28(2):70-78.
- (114) Wayte SC, Redpath TW. Cine magnetic resonance imaging of pulsatile cerebrospinal fluid flow using CSPAMM. *Br J Radiol* 1994; 67(803):1088-1095.

- (115) Thomsen C, Stahlberg F, Stubgaard M, Nordell B. Fourier analysis of cerebrospinal fluid flow velocities: MR imaging study. The Scandinavian Flow Group. *Radiology* 1990; 177(3):659-665.
- (116) Ridgway JP, Turnbull LW, Smith MA. Demonstration of pulsatile cerebrospinal-fluid flow using magnetic resonance phase imaging. *Br J Radiol* 1987; 60(713):423-427.
- (117) Levy LM, Di Chiro G. MR phase imaging and cerebrospinal fluid flow in the head and spine. *Neuroradiology* 1990; 32(5):399-406.
- (118) Henry-Feugeas MC, Idy-Peretti I, Baledent O, Poncelet-Didon A, Zannoli G, Bittoun J et al. Origin of subarachnoid cerebrospinal fluid pulsations: a phase-contrast MR analysis. *Magn Reson Imaging* 2000; 18(4):387-395.
- (119) Bhadelia RA, Bogdan AR, Wolpert SM. Cerebrospinal fluid flow waveforms: effect of altered cranial venous outflow. A phase-contrast MR flow imaging study. *Neuroradiology* 1998; 40(5):283-292.
- (120) Bhadelia RA, Bogdan AR, Kaplan RF, Wolpert SM. Cerebrospinal fluid pulsation amplitude and its quantitative relationship to cerebral blood flow pulsations: a phase-contrast MR flow imaging study. *Neuroradiology* 1997; 39(4):258-264.
- (121) Bergstrand G, Bergstrom M, Nordell B, Stahlberg F, Ericsson A, Hemmingsson A et al. Cardiac gated MR imaging of cerebrospinal fluid flow. *J Comput Assist Tomogr* 1985; 9(6):1003-1006.
- (122) Henry-Feugeas MC, Idy-Peretti I, Baledent O, Poncelet-Didon A, Zannoli G, Bittoun J et al. Origin of subarachnoid cerebrospinal fluid pulsations: a phase-contrast MR analysis. *Magn Reson Imaging* 2000; 18(4):387-395.
- (123) Bhadelia RA, Bogdan AR, Wolpert SM. Cerebrospinal fluid flow waveforms: effect of altered cranial venous outflow. A phase-contrast MR flow imaging study. *Neuroradiology* 1998; 40(5):283-292.
- (124) Bhadelia RA, Bogdan AR, Kaplan RF, Wolpert SM. Cerebrospinal fluid pulsation amplitude and its quantitative relationship to cerebral blood flow pulsations: a phase-contrast MR flow imaging study. *Neuroradiology* 1997; 39(4):258-264.
- (125) Bhadelia RA, Bogdan AR, Wolpert SM. Analysis of cerebrospinal fluid flow waveforms with gated phase-contrast MR velocity measurements. *AJNR Am J Neuroradiol* 1995; 16(2):389-400.
- (126) Henry-Feugeas MC, Idy-Peretti I, Baledent O, Poncelet-Didon A, Zannoli G, Bittoun J et al. Origin of subarachnoid cerebrospinal fluid pulsations: a phase-contrast MR analysis. *Magn Reson Imaging* 2000; 18(4):387-395.

- (127) Enzmann DR, Pelc NJ. Cerebrospinal fluid flow measured by phase-contrast cine MR. *AJNR Am J Neuroradiol* 1993; 14(6):1301-1307.
- (128) Bhadelia RA, Bogdan AR, Wolpert SM. Analysis of cerebrospinal fluid flow waveforms with gated phase-contrast MR velocity measurements. *AJNR Am J Neuroradiol* 1995; 16(2):389-400.
- (129) Katayama S, Asari S, Ohmoto T. Quantitative measurement of normal and hydrocephalic cerebrospinal fluid flow using phase contrast cine MR imaging. *Acta Med Okayama* 1993; 47(3):157-168.
- (130) Barkhof F, Kouwenhoven M, Scheltens P, Sprenger M, Algra P, Valk J. Phase-contrast cine MR imaging of normal aqueductal CSF flow. Effect of aging and relation to CSF void on modulus MR. *Acta Radiol* 1994; 35(2):123-130.
- (131) Bhadelia RA, Bogdan AR, Wolpert SM. Cerebrospinal fluid flow waveforms: effect of altered cranial venous outflow. A phase-contrast MR flow imaging study. *Neuroradiology* 1998; 40(5):283-292.
- (132) Bhadelia RA, Bogdan AR, Kaplan RF, Wolpert SM. Cerebrospinal fluid pulsation amplitude and its quantitative relationship to cerebral blood flow pulsations: a phase-contrast MR flow imaging study. *Neuroradiology* 1997; 39(4):258-264.
- (133) Bradley WG, Jr., Whittemore AR, Kortman KE, Watanabe AS, Homyak M, Teresi LM et al. Marked cerebrospinal fluid void: indicator of successful shunt in patients with suspected normal-pressure hydrocephalus. *Radiology* 1991; 178(2):459-466.
- (134) Poca MA, Sahuquillo J, Busto M, Rovira A, Capellades J, Mataro M et al. Agreement between CSF flow dynamics in MRI and ICP monitoring in the diagnosis of normal pressure hydrocephalus. Sensitivity and specificity of CSF dynamics to predict outcome. *Acta Neurochir Suppl* 2002; 81:7-10.
- (135) Luetmer PH, Huston J, Friedman JA, Dixon GR, Petersen RC, Jack CR et al. Measurement of cerebrospinal fluid flow at the cerebral aqueduct by use of phase-contrast magnetic resonance imaging: technique validation and utility in diagnosing idiopathic normal pressure hydrocephalus. *Neurosurgery* 2002; 50(3):534-543.
- (136) Luetmer PH, Huston J, Friedman JA, Dixon GR, Petersen RC, Jack CR et al. Measurement of cerebrospinal fluid flow at the cerebral aqueduct by use of phase-contrast magnetic resonance imaging: technique validation and utility in diagnosing idiopathic normal pressure hydrocephalus. *Neurosurgery* 2002; 50(3):534-543.
- (137) Dixon GR, Friedman JA, Luetmer PH, Quast LM, McClelland RL, Petersen RC et al. Use of cerebrospinal fluid flow rates measured by phase-contrast MR

- to predict outcome of ventriculoperitoneal shunting for idiopathic normal-pressure hydrocephalus. *Mayo Clin Proc* 2002; 77(6):509-514.
- (138) Barkhof F, Kouwenhoven M, Scheltens P, Sprenger M, Algra P, Valk J. Phase-contrast cine MR imaging of normal aqueductal CSF flow. Effect of aging and relation to CSF void on modulus MR. *Acta Radiol* 1994; 35(2):123-130.
- (139) Enzmann DR, Pelc NJ. Cerebrospinal fluid flow measured by phase-contrast cine MR. *AJNR Am J Neuroradiol* 1993; 14(6):1301-1307.
- (140) Bradley WG, Jr., Whittemore AR, Kortman KE, Watanabe AS, Homyak M, Teresi LM et al. Marked cerebrospinal fluid void: indicator of successful shunt in patients with suspected normal-pressure hydrocephalus. *Radiology* 1991; 178(2):459-466.
- (141) Enzmann DR, Pelc NJ. Cerebrospinal fluid flow measured by phase-contrast cine MR. *AJNR Am J Neuroradiol* 1993; 14(6):1301-1307.
- (142) Barkhof F, Kouwenhoven M, Scheltens P, Sprenger M, Algra P, Valk J. Phase-contrast cine MR imaging of normal aqueductal CSF flow. Effect of aging and relation to CSF void on modulus MR. *Acta Radiol* 1994; 35(2):123-130.
- (143) Atlas SW, Mark AS, Fram EK. Aqueductal stenosis: evaluation with gradient-echo rapid MR imaging. *Radiology* 1988; 169(2):449-453.
- (144) Oi S, Shimoda M, Shibata M, Honda Y, Togo K, Shinoda M et al. Pathophysiology of long-standing overt ventriculomegaly in adults. *J Neurosurg* 2000; 92(6):933-940.
- (145) Ernst S, Ernestus RI, Kugel H, Lackner K. [MRI with cerebrospinal fluid measurement before and after endoscopic ventriculostomy and aqueductal stenosis]. *Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr* 2001; 173(6):502-508.
- (146) Kadowaki C, Hara M, Numoto M, Takeuchi K, Saito I. Cine magnetic resonance imaging of aqueductal stenosis. *Childs Nerv Syst* 1995; 11(2):107-111.
- (147) Novetsky GJ, Berlin L. Aqueductal stenosis: demonstration by MR imaging. *J Comput Assist Tomogr* 1984; 8(6):1170-1171.
- (148) Oi S, Shimoda M, Shibata M, Honda Y, Togo K, Shinoda M et al. Pathophysiology of long-standing overt ventriculomegaly in adults. *J Neurosurg* 2000; 92(6):933-940.
- (149) Kadowaki C, Hara M, Numoto M, Takeuchi K, Saito I. Cine magnetic resonance imaging of aqueductal stenosis. *Childs Nerv Syst* 1995; 11(2):107-111.

- (150) Fukuhara T, Luciano MG. Clinical features of late-onset idiopathic aqueductal stenosis. *Surg Neurol* 2001; 55(3):132-136.
- (151) Ernst S, Ernestus RI, Kugel H, Lackner K. [MRI with cerebrospinal fluid measurement before and after endoscopic ventriculostomy and aqueductal stenosis]. *Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr* 2001; 173(6):502-508.
- (152) Oi S, Shimoda M, Shibata M, Honda Y, Togo K, Shinoda M et al. Pathophysiology of long-standing overt ventriculomegaly in adults. *J Neurosurg* 2000; 92(6):933-940.
- (153) Kadowaki C, Hara M, Numoto M, Takeuchi K, Saito I. Cine magnetic resonance imaging of aqueductal stenosis. *Childs Nerv Syst* 1995; 11(2):107-111.
- (154) Kadowaki C, Hara M, Numoto M, Takeuchi K, Saito I. Cine magnetic resonance imaging of aqueductal stenosis. *Childs Nerv Syst* 1995; 11(2):107-111.
- (155) Ernst S, Ernestus RI, Kugel H, Lackner K. [MRI with cerebrospinal fluid measurement before and after endoscopic ventriculostomy and aqueductal stenosis]. *Rofo Fortschr Geb Rontgenstr Neuen Bildgeb Verfahr* 2001; 173(6):502-508.
- (156) Fukuhara T, Luciano MG. Clinical features of late-onset idiopathic aqueductal stenosis. *Surg Neurol* 2001; 55(3):132-136.
- (157) Kadowaki C, Hara M, Numoto M, Takeuchi K, Saito I. Cine magnetic resonance imaging of aqueductal stenosis. *Childs Nerv Syst* 1995; 11(2):107-111.
- (158) Guin PR. Arnold-Chiari malformation--a closer look. *J Neurosurg Nurs* 1985; 17(1):45-52.
- (159) Karagoz F, Izgi N, Kapijicjoglu SS. Morphometric measurements of the cranium in patients with Chiari type I malformation and comparison with the normal population. *Acta Neurochir (Wien)* 2002; 144(2):165-171.
- (160) Houghton VM, Korosec FR, Medow JE, Dolar MT, Iskandar BJ. Peak systolic and diastolic CSF velocity in the foramen magnum in adult patients with Chiari I malformations and in normal control participants. *AJNR Am J Neuroradiol* 2003; 24(2):169-176.
- (161) Levy LM. MR identification of Chiari pathophysiology by using spatial and temporal CSF flow indices and implications for syringomyelia. *AJNR Am J Neuroradiol* 2003; 24(2):165-166.

- (162) Wolpert SM, Bhadelia RA, Bogdan AR, Cohen AR. Chiari I malformations: assessment with phase-contrast velocity MR. *AJNR Am J Neuroradiol* 1994; 15(7):1299-1308.
- (163) Bhadelia RA, Bogdan AR, Wolpert SM, Lev S, Appignani BA, Heilman CB. Cerebrospinal fluid flow waveforms: analysis in patients with Chiari I malformation by means of gated phase-contrast MR imaging velocity measurements. *Radiology* 1995; 196(1):195-202.
- (164) Haughton VM, Korosec FR, Medow JE, Dolar MT, Iskandar BJ. Peak systolic and diastolic CSF velocity in the foramen magnum in adult patients with Chiari I malformations and in normal control participants. *AJNR Am J Neuroradiol* 2003; 24(2):169-176.
- (165) Hofmann E, Warmuth-Metz M, Bendszus M, Solymosi L. Phase-contrast MR imaging of the cervical CSF and spinal cord: volumetric motion analysis in patients with Chiari I malformation. *AJNR Am J Neuroradiol* 2000; 21(1):151-158.
- (166) Wolpert SM, Bhadelia RA, Bogdan AR, Cohen AR. Chiari I malformations: assessment with phase-contrast velocity MR. *AJNR Am J Neuroradiol* 1994; 15(7):1299-1308.
- (167) Pujol J, Roig C, Capdevila A, Pou A, Marti-Vilalta JL, Kulisevsky J et al. Motion of the cerebellar tonsils in Chiari type I malformation studied by cine phase-contrast MRI. *Neurology* 1995; 45(9):1746-1753.
- (168) Bergsneider M. Evolving concepts of cerebrospinal fluid physiology. *Neurosurg Clin N Am* 2001; 12(4):631-8, vii.
- (169) Bhadelia RA, Bogdan AR, Wolpert SM, Lev S, Appignani BA, Heilman CB. Cerebrospinal fluid flow waveforms: analysis in patients with Chiari I malformation by means of gated phase-contrast MR imaging velocity measurements. *Radiology* 1995; 196(1):195-202.
- (170) Haughton VM, Korosec FR, Medow JE, Dolar MT, Iskandar BJ. Peak systolic and diastolic CSF velocity in the foramen magnum in adult patients with Chiari I malformations and in normal control participants. *AJNR Am J Neuroradiol* 2003; 24(2):169-176.
- (171) Hofmann E, Warmuth-Metz M, Bendszus M, Solymosi L. Phase-contrast MR imaging of the cervical CSF and spinal cord: volumetric motion analysis in patients with Chiari I malformation. *AJNR Am J Neuroradiol* 2000; 21(1):151-158.
- (172) Levy LM. MR identification of Chiari pathophysiology by using spatial and temporal CSF flow indices and implications for syringomyelia. *AJNR Am J Neuroradiol* 2003; 24(2):165-166.

- (173) Pujol J, Roig C, Capdevila A, Pou A, Marti-Vilalta JL, Kulisevsky J et al. Motion of the cerebellar tonsils in Chiari type I malformation studied by cine phase-contrast MRI. *Neurology* 1995; 45(9):1746-1753.
- (174) Bradley WG, Jr., Whittemore AR, Kortman KE, Watanabe AS, Homyak M, Teresi LM et al. Marked cerebrospinal fluid void: indicator of successful shunt in patients with suspected normal-pressure hydrocephalus. *Radiology* 1991; 178(2):459-466.
- (175) Bradley WG, Jr., Whittemore AR, Kortman KE, Watanabe AS, Homyak M, Teresi LM et al. Marked cerebrospinal fluid void: indicator of successful shunt in patients with suspected normal-pressure hydrocephalus. *Radiology* 1991; 178(2):459-466.
- (176) Bradley WG, Jr., Scalzo D, Queralt J, Nitz WN, Atkinson DJ, Wong P. Normal-pressure hydrocephalus: evaluation with cerebrospinal fluid flow measurements at MR imaging. *Radiology* 1996; 198(2):523-529.
- (177) Dixon GR, Friedman JA, Luetmer PH, Quast LM, McClelland RL, Petersen RC et al. Use of cerebrospinal fluid flow rates measured by phase-contrast MR to predict outcome of ventriculoperitoneal shunting for idiopathic normal-pressure hydrocephalus. *Mayo Clin Proc* 2002; 77(6):509-514.
- (178) Luetmer PH, Huston J, Friedman JA, Dixon GR, Petersen RC, Jack CR et al. Measurement of cerebrospinal fluid flow at the cerebral aqueduct by use of phase-contrast magnetic resonance imaging: technique validation and utility in diagnosing idiopathic normal pressure hydrocephalus. *Neurosurgery* 2002; 50(3):534-543.
- (179) Bradley WG. Normal pressure hydrocephalus: new concepts on etiology and diagnosis. *AJNR Am J Neuroradiol* 2000; 21(9):1586-1590.
- (180) Bradley WG. Normal pressure hydrocephalus and deep white matter ischemia: which is the chicken, and which is the egg? *AJNR Am J Neuroradiol* 2001; 22(9):1638-1640.
- (181) Bradley WG, Jr., Whittemore AR, Watanabe AS, Davis SJ, Teresi LM, Homyak M. Association of deep white matter infarction with chronic communicating hydrocephalus: implications regarding the possible origin of normal-pressure hydrocephalus. *AJNR Am J Neuroradiol* 1991; 12(1):31-39.
- (182) Bradley WG, Jr., Scalzo D, Queralt J, Nitz WN, Atkinson DJ, Wong P. Normal-pressure hydrocephalus: evaluation with cerebrospinal fluid flow measurements at MR imaging. *Radiology* 1996; 198(2):523-529.
- (183) Bradley WG, Jr. Diagnostic tools in hydrocephalus. *Neurosurg Clin N Am* 2001; 12(4):661-84, viii.

- (184) Luetmer PH, Huston J, Friedman JA, Dixon GR, Petersen RC, Jack CR et al. Measurement of cerebrospinal fluid flow at the cerebral aqueduct by use of phase-contrast magnetic resonance imaging: technique validation and utility in diagnosing idiopathic normal pressure hydrocephalus. *Neurosurgery* 2002; 50(3):534-543.
- (185) Dixon GR, Friedman JA, Luetmer PH, Quast LM, McClelland RL, Petersen RC et al. Use of cerebrospinal fluid flow rates measured by phase-contrast MR to predict outcome of ventriculoperitoneal shunting for idiopathic normal-pressure hydrocephalus. *Mayo Clin Proc* 2002; 77(6):509-514.
- (186) Katayama S, Asari S, Ohmoto T. Quantitative measurement of normal and hydrocephalic cerebrospinal fluid flow using phase contrast cine MR imaging. *Acta Med Okayama* 1993; 47(3):157-168.
- (187) Katayama S, Asari S, Ohmoto T. Quantitative measurement of normal and hydrocephalic cerebrospinal fluid flow using phase contrast cine MR imaging. *Acta Med Okayama* 1993; 47(3):157-168.
- (188) Hebb AO, Cusimano MD. Idiopathic normal pressure hydrocephalus: a systematic review of diagnosis and outcome. *Neurosurgery* 2001; 49(5):1166-1184.
- (189) Fisher CM. Hydrocephalus as a cause of disturbances of gait in the elderly. *Neurology* 1982; 32(12):1358-1363.
- (190) Graff-Radford NR, Godersky JC. Normal-pressure hydrocephalus. Onset of gait abnormality before dementia predicts good surgical outcome. *Arch Neurol* 1986; 43(9):940-942.
- (191) Krauss JK, Droste DW, Vach W, Regel JP, Orszagh M, Borremans JJ et al. Cerebrospinal fluid shunting in idiopathic normal-pressure hydrocephalus of the elderly: effect of periventricular and deep white matter lesions
8. *Neurosurgery* 1996; 39(2):292-299.
- (192) Raftopoulos C, Deleval J, Chaskis C, Leonard A, Cantraine F, Desmyttere F et al. Cognitive recovery in idiopathic normal pressure hydrocephalus: a prospective study
2. *Neurosurgery* 1994; 35(3):397-404.
- (193) Hebb AO, Cusimano MD. Idiopathic normal pressure hydrocephalus: a systematic review of diagnosis and outcome. *Neurosurgery* 2001; 49(5):1166-1184.

- (194) Raftopoulos C, Deleval J, Chaskis C, Leonard A, Cantraine F, Desmyttere F et al. Cognitive recovery in idiopathic normal pressure hydrocephalus: a prospective study
2. Neurosurgery 1994; 35(3):397-404.
- (195) Hebb AO, Cusimano MD. Idiopathic normal pressure hydrocephalus: a systematic review of diagnosis and outcome. Neurosurgery 2001; 49(5):1166-1184.
- (196) Benzel EC, Pelletier AL, Levy PG. Communicating hydrocephalus in adults: prediction of outcome after ventricular shunting procedures
2. Neurosurgery 1990; 26(4):655-660.
- (197) Hakim R, Black PM. Correlation between lumbo-ventricular perfusion and MRI-CSF flow studies in idiopathic normal pressure hydrocephalus
1. Surg Neurol 1998; 49(1):14-19.
- (198) Black PM. Idiopathic normal-pressure hydrocephalus. Results of shunting in 62 patients. J Neurosurg 1980; 52(3):371-377.
- (199) Vanneste J, Augustijn P, Tan WF, Dirven C. Shunting normal pressure hydrocephalus: the predictive value of combined clinical and CT data. J Neurol Neurosurg Psychiatry 1993; 56(3):251-256.
- (200) Bradley WG. Cerebrospinal fluid dynamics and shunt responsiveness in patients with normal-pressure hydrocephalus. Mayo Clin Proc 2002; 77(6):507-508.
- (201) Borgesen SE, Gjerris F, Srensen SC. The resistance to cerebrospinal fluid absorption in humans. A method of evaluation by lumbo-ventricular perfusion, with particular reference to normal pressure hydrocephalus
57. Acta Neurol Scand 1978; 57(1):88-96.
- (202) Thomsen AM, Borgesen SE, Bruhn P, Gjerris F. Prognosis of dementia in normal-pressure hydrocephalus after a shunt operation. Ann Neurol 1986; 20(3):304-310.
- (203) Kosteljanetz M, Nehen AM, Kaalund J. Cerebrospinal fluid outflow resistance measurements in the selection of patients for shunt surgery in the normal pressure hydrocephalus syndrome. A controlled trial. Acta Neurochir (Wien) 1990; 104(1-2):48-53.

- (204) Meier U, Bartels P. The importance of the intrathecal infusion test in the diagnosis of normal pressure hydrocephalus. *J Clin Neurosci* 2002; 9(3):260-267.
- (205) Boon AJ, Tans JT, Delwel EJ, Egeler-Peerdeman SM, Hanlo PW, Wurzer HA et al. Dutch normal-pressure hydrocephalus study: prediction of outcome after shunting by resistance to outflow of cerebrospinal fluid. *J Neurosurg* 1997; 87(5):687-693.
- (206) Meier U, Bartels P. The importance of the intrathecal infusion test in the diagnosis of normal pressure hydrocephalus. *J Clin Neurosci* 2002; 9(3):260-267.
- (207) Meier U, Bartels P. The importance of the intrathecal infusion test in the diagnosis of normal pressure hydrocephalus. *J Clin Neurosci* 2002; 9(3):260-267.
- (208) Kahlon B, Sundbarg G, Rehncrona S. Comparison between the lumbar infusion and CSF tap tests to predict outcome after shunt surgery in suspected normal pressure hydrocephalus. *J Neurol Neurosurg Psychiatry* 2002; 73(6):721-726.
- (209) Boon AJ, Tans JT, Delwel EJ, Egeler-Peerdeman SM, Hanlo PW, Wurzer HA et al. Dutch normal-pressure hydrocephalus study: prediction of outcome after shunting by resistance to outflow of cerebrospinal fluid. *J Neurosurg* 1997; 87(5):687-693.
- (210) Krauss JK, Droste DW, Vach W, Regel JP, Orszagh M, Borremans JJ et al. Cerebrospinal fluid shunting in idiopathic normal-pressure hydrocephalus of the elderly: effect of periventricular and deep white matter lesions
8. *Neurosurgery* 1996; 39(2):292-299.
- (211) Tedeschi E, Hasselbalch SG, Waldemar G, Juhler M, Høgh P, Holm S et al. Heterogeneous cerebral glucose metabolism in normal pressure hydrocephalus
20. *J Neurol Neurosurg Psychiatry* 1995; 59(6):608-615.
- (212) Luetmer PH, Huston J, Friedman JA, Dixon GR, Petersen RC, Jack CR et al. Measurement of cerebrospinal fluid flow at the cerebral aqueduct by use of phase-contrast magnetic resonance imaging: technique validation and utility in diagnosing idiopathic normal pressure hydrocephalus. *Neurosurgery* 2002; 50(3):534-543.
- (213) Bradley WG, Jr., Scalzo D, Queralt J, Nitz WN, Atkinson DJ, Wong P. Normal-pressure hydrocephalus: evaluation with cerebrospinal fluid flow measurements at MR imaging. *Radiology* 1996; 198(2):523-529.

- (214) Dixon GR, Friedman JA, Luetmer PH, Quast LM, McClelland RL, Petersen RC et al. Use of cerebrospinal fluid flow rates measured by phase-contrast MR to predict outcome of ventriculoperitoneal shunting for idiopathic normal-pressure hydrocephalus. *Mayo Clin Proc* 2002; 77(6):509-514.
- (215) Luetmer PH, Huston J, Friedman JA, Dixon GR, Petersen RC, Jack CR et al. Measurement of cerebrospinal fluid flow at the cerebral aqueduct by use of phase-contrast magnetic resonance imaging: technique validation and utility in diagnosing idiopathic normal pressure hydrocephalus. *Neurosurgery* 2002; 50(3):534-543.
- (216) Bradley WG, Jr., Scalzo D, Queralt J, Nitz WN, Atkinson DJ, Wong P. Normal-pressure hydrocephalus: evaluation with cerebrospinal fluid flow measurements at MR imaging. *Radiology* 1996; 198(2):523-529.
- (217) Dixon GR, Friedman JA, Luetmer PH, Quast LM, McClelland RL, Petersen RC et al. Use of cerebrospinal fluid flow rates measured by phase-contrast MR to predict outcome of ventriculoperitoneal shunting for idiopathic normal-pressure hydrocephalus. *Mayo Clin Proc* 2002; 77(6):509-514.
- (218) Fukuhara T, Luciano MG. Clinical features of late-onset idiopathic aqueductal stenosis. *Surg Neurol* 2001; 55(3):132-136.
- (219) Hopf NJ, Grunert P, Fries G, Resch KD, Perneczky A. Endoscopic third ventriculostomy: outcome analysis of 100 consecutive procedures. *Neurosurgery* 1999; 44(4):795-804.
- (220) Morota N, Watabe T, Inukai T, Hongo K, Nakagawa H. Anatomical variants in the floor of the third ventricle; implications for endoscopic third ventriculostomy. *J Neurol Neurosurg Psychiatry* 2000; 69(4):531-534.
- (221) Murshid WR. Endoscopic third ventriculostomy: towards more indications for the treatment of non-communicating hydrocephalus. *Minim Invasive Neurosurg* 2000; 43(2):75-82.
- (222) Rieger A, Rainov NG, Brucke M, Marx T, Holz C. Endoscopic third ventriculostomy is the treatment of choice for obstructive hydrocephalus due to pediatric pineal tumors. *Minim Invasive Neurosurg* 2000; 43(2):83-86.
- (223) Schroeder HW, Schweim C, Schweim KH, Gaab MR. Analysis of aqueductal cerebrospinal fluid flow after endoscopic aqueductoplasty by using cine phase-contrast magnetic resonance imaging. *J Neurosurg* 2000; 93(2):237-244.
- (224) Buxton N, Macarthur D, Mallucci C, Punt J, Vloeberghs M. Neuroendoscopic third ventriculostomy in patients less than 1 year old. *Pediatr Neurosurg* 1998; 29(2):73-76.

- (225) Buxton N, Ho KJ, Macarthur D, Vloeberghs M, Punt J, Robertson I. Neuroendoscopic third ventriculostomy for hydrocephalus in adults: report of a single unit's experience with 63 cases. *Surg Neurol* 2001; 55(2):74-78.
- (226) Cinalli G, Sainte-Rose C, Chumas P, Zerah M, Brunelle F, Lot G et al. Failure of third ventriculostomy in the treatment of aqueductal stenosis in children. *J Neurosurg* 1999; 90(3):448-454.
- (227) Fukuhara T, Vorster SJ, Luciano MG. Risk factors for failure of endoscopic third ventriculostomy for obstructive hydrocephalus. *Neurosurgery* 2000; 46(5):1100-1109.
- (228) Hopf NJ, Grunert P, Fries G, Resch KD, Perneczky A. Endoscopic third ventriculostomy: outcome analysis of 100 consecutive procedures. *Neurosurgery* 1999; 44(4):795-804.
- (229) Jones RF, Stening WA, Brydon M. Endoscopic third ventriculostomy. *Neurosurgery* 1990; 26(1):86-91.
- (230) Meier U, Zeilinger FS, Schonherr B. Endoscopic ventriculostomy versus shunt operation in normal pressure hydrocephalus: diagnostics and indication. *Minim Invasive Neurosurg* 2000; 43(2):87-90.
- (231) Fukuhara T, Vorster SJ, Luciano MG. Risk factors for failure of endoscopic third ventriculostomy for obstructive hydrocephalus. *Neurosurgery* 2000; 46(5):1100-1109.
- (232) Suehiro T, Inamura T, Natori Y, Sasaki M, Fukui M. Successful neuroendoscopic third ventriculostomy for hydrocephalus and syringomyelia associated with fourth ventricle outlet obstruction. Case report. *J Neurosurg* 2000; 93(2):326-329.
- (233) Buxton N, Ho KJ, Macarthur D, Vloeberghs M, Punt J, Robertson I. Neuroendoscopic third ventriculostomy for hydrocephalus in adults: report of a single unit's experience with 63 cases. *Surg Neurol* 2001; 55(2):74-78.
- (234) Rovira A, Capellades J, Grive E, Poca MA, Pedraza S, Sahuquillo J et al. Spontaneous ventriculostomy: report of three cases revealed by flow-sensitive phase-contrast cine MR imaging. *AJNR Am J Neuroradiol* 1999; 20(9):1647-1652.
- (235) Buxton N, Turner B, Ramli N, Vloeberghs M. Changes in third ventricular size with neuroendoscopic third ventriculostomy: a blinded study. *J Neurol Neurosurg Psychiatry* 2002; 72(3):385-387.
- (236) Cinalli G, Sainte-Rose C, Chumas P, Zerah M, Brunelle F, Lot G et al. Failure of third ventriculostomy in the treatment of aqueductal stenosis in children. *J Neurosurg* 1999; 90(3):448-454.

- (237) Fukuhara T, Vorster SJ, Ruggieri P, Luciano MG. Third ventriculostomy patency: comparison of findings at cine phase-contrast MR imaging and at direct exploration. *AJNR Am J Neuroradiol* 1999; 20(8):1560-1566.
- (238) Fukuhara T, Vorster SJ, Luciano MG. Risk factors for failure of endoscopic third ventriculostomy for obstructive hydrocephalus. *Neurosurgery* 2000; 46(5):1100-1109.
- (239) Hayashi N, Hamada H, Hirashima Y, Kurimoto M, Takaku A, Endo S. Clinical features in patients requiring reoperation after failed endoscopic procedures for hydrocephalus. *Minim Invasive Neurosurg* 2000; 43(4):181-186.
- (240) Kulkarni AV, Drake JM, Armstrong DC, Dirks PB. Imaging correlates of successful endoscopic third ventriculostomy. *J Neurosurg* 2000; 92(6):915-919.
- (241) Meier U, Zeilinger FS, Schonherr B. Endoscopic ventriculostomy versus shunt operation in normal pressure hydrocephalus: diagnostics and indication. *Minim Invasive Neurosurg* 2000; 43(2):87-90.
- (242) Murshid WR. Endoscopic third ventriculostomy: towards more indications for the treatment of non-communicating hydrocephalus. *Minim Invasive Neurosurg* 2000; 43(2):75-82.
- (243) Schroeder HW, Schweim C, Schweim KH, Gaab MR. Analysis of aqueductal cerebrospinal fluid flow after endoscopic aqueductoplasty by using cine phase-contrast magnetic resonance imaging. *J Neurosurg* 2000; 93(2):237-244.
- (244) Buxton N, Turner B, Ramli N, Vloeberghs M. Changes in third ventricular size with neuroendoscopic third ventriculostomy: a blinded study. *J Neurol Neurosurg Psychiatry* 2002; 72(3):385-387.
- (245) Oka K, Go Y, Kin Y, Utsunomiya H, Tomonaga M. The radiographic restoration of the ventricular system after third ventriculostomy. *Minim Invasive Neurosurg* 1995; 38(4):158-162.
- (246) Schwartz TH, Yoon SS, Cutruzzola FW, Goodman RR. Third ventriculostomy: post-operative ventricular size and outcome. *Minim Invasive Neurosurg* 1996; 39(4):122-129.
- (247) Schwartz TH, Ho B, Prestigiacomo CJ, Bruce JN, Feldstein NA, Goodman RR. Ventricular volume following third ventriculostomy. *J Neurosurg* 1999; 91(1):20-25.
- (248) Buxton N, Macarthur D, Mallucci C, Punt J, Vloeberghs M. Neuroendoscopic third ventriculostomy in patients less than 1 year old. *Pediatr Neurosurg* 1998; 29(2):73-76.

- (249) Cinalli G, Sainte-Rose C, Chumas P, Zerah M, Brunelle F, Lot G et al. Failure of third ventriculostomy in the treatment of aqueductal stenosis in children. *J Neurosurg* 1999; 90(3):448-454.
- (250) Goumnerova LC, Frim DM. Treatment of hydrocephalus with third ventriculocisternostomy: outcome and CSF flow patterns. *Pediatr Neurosurg* 1997; 27(3):149-152.
- (251) Rieger A, Rainov NG, Brucke M, Marx T, Holz C. Endoscopic third ventriculostomy is the treatment of choice for obstructive hydrocephalus due to pediatric pineal tumors. *Minim Invasive Neurosurg* 2000; 43(2):83-86.
- (252) Lev S, Bhadelia RA, Estin D, Heilman CB, Wolpert SM. Functional analysis of third ventriculostomy patency with phase-contrast MRI velocity measurements. *Neuroradiology* 1997; 39(3):175-179.

