

CANADIAN ASSOCIATION OF NEUROPATHOLOGISTS

L'ASSOCIATION CANADIENNE DES NEUROPATHOLOGISTES

**49th ANNUAL MEETING
OCTOBER 14th – 17th, 2009**

Case Diagnoses and References

1. Oculopharyngeal muscular dystrophy.

F. Al Sufiani, H. Desai and L.C. Ang

London Health Sciences Centre, University of Western Ontario, London, Ontario, Canada; Windsor Health Center, Windsor, Ontario, Canada

- i. Tome F.M.S. et al. Morphological changes in muscle fibers in Oculopharyngeal Muscular Dystrophy. *Neuromuscular Disorders* 1997; 7, Supplement 1:63-69.
- ii. Tome FM, Fardeau M Nuclear inclusion in Oculopharyngeal Dystrophy. *Acta Neuropathol.* 1980;49(1):85-7
- iii. Van der Sluijs BM, ter Laak HJ, Scheffer H, van der Maarel SM, van Engelen BG. Autosomal recessive Oculopharyngodistal Myopathy: a distinct phenotypical, histological, and genetic entity. *J Neurol Neurosurg Psychiatry.* 2004;75(10):1499-501.

2. Balo's concentric sclerosis

C. I. Coiré

Department of Pathology, Trillium Health Centre, Mississauga, ON, Canada

- i. Stadelmann C, Ludwin S, Tabira T et al. Tissue Preconditioning May Explain concentric Lesions in Balo's Type of Multiple Sclerosis. *Brain* 2005; 128; 979-987.
- ii. Khonsari RH, Calvez V. The Origins of Concentric Demyelination: Self-Organization in the Human Brain. *PloS One* 2007; 2(1); 1-7.
- iii. Moore GRW, Berry K, Oger JJF et al. Balo's Concentric Sclerosis: Surviving Normal Myelin in a Patient with a Relapsing-Remitting Clinical Course. *Multiple Sclerosis* 2001; 7; 375-382.

3. Immune reconstitutive inflammatory syndrome (IRIS)

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Department of Neuropathology, Montreal Neurological Institute and Hospital, Montreal, QC, Canada

- i. Gonzalez-Duarte, A. et al. Inflammatory pseudotumor associated with HIV, JCV, and Immune reconstitution syndrome. *Neurology* 2009; 72:289-290.
- ii. McCombe, J.A. et al. Neurologic immune reconstitution inflammatory syndrome in HIV/AIDS : Outcome and epidemiology. *Neurology* 2009; 72:835-841.
- iii. Rushing, E.J. et al. Immune Reconstitution Inflammatory Syndrome of the brain: Case illustrations of a challenging entity. *Journal of Neuropathology and Experimental Neurology* 2008; 67(8):819-827.

4. Inflammatory pseudotumour of the right lateral ventricle.

S. Al-Dandan and I.R.A. Mackenzie

Neuropathology Section, Department of Pathology and Laboratory Medicine, University of British Columbia

- i. Miyahara K, Fujitsu K, Yagishita S, Takemoto Y, Ichikawa T, Matsunaga S, Takeda Y, Niino H, Shiina T. Inflammatory pseudotumor of the choroid plexus. Case report. *J Neurosurg* 108:365–369, 2008.
- ii. Park J, Nam T, Hwang S, Park S. Inflammatory Pseudotumor in the Lateral Ventricle with Repeated Bleeding. Case Report. *J Korean Neurosurg Soc* 45(2):99-102, 2009. Epub 2009 Feb 28.
- iii. Swain R, Tihan T, Horvai A, Di Vizio D, Loda M, Burger P, Scheithauer B, Kim G. Inflammatory myofibroblastic tumor of the central nervous system and its relationship to inflammatory pseudotumor. *Hum Pathol.* 39(3):410-9, 2008.

5. Necrotizing granulomatous meningitis following anti-TNF-alpha antibody treatment for rheumatoid arthritis

J. Wooff and R.J.B. Macaulay

Department of Pathology, QE 2 HSC and Dalhousie University, Halifax, Canada

- i. Marotte H, Charrin JE and Miossec P. Infliximab-induced aseptic meningitis. *Lancet* 2001; 358:1784
- ii. Ahmed M, Luggen M, Herman JH, Wiess KL, Decourten-Myers G, Quinlan JG and Khanna D. Hypertrophic pachymeningitis in rheumatoid arthritis after adalimumab administration. *J Rheumatol* 2006; 33:2344-6.

6. Progressive multifocal leukoencephalopathy

B. Lach, B.S. Connolly and E. Stopa

Department of Pathology and Molecular Medicine, Hamilton Health Sciences Centre, MacMaster University, Hamilton, ON, Canada

- i. Liptai Z, Papp E, Barsi P, Mihaly I, Sxalai E, Csomor J, Jelenik Z. Progressive multifocal leukoencephalopathy in an HIV-infected child. *Neuropediatrics*. 2007;38(1):32-5.
- ii. Svensson P, Larsson E. Infratentorial progressive multifocal leukoencephalopathy (PML) in a patient with SLE. *Eur Radiol*. 2008;18:1526-8.
- iii. Richardson EP. Progressive multifocal leukoencephalopathy. *N Engl J Med*. 1961;265(17):815-23.
- iv. Wuthrich C, Chen YM, Joseph JT, Kesari S, Beckwith C, Stopa E, Bell JE, Koralmik IJ. Frequent infection of cerebellar granule cell neurons by polyomavirus JC in progressive multifocal leukoencephalopathy. *J Neuropathol Exp Neurol*. 2008;68(1):15-25.

7. Adult onset leukodystrophy with neuroaxonal spheroids and pigmented glia

R.N. Auer

Calgary Laboratory Services, University of Calgary, Alberta, Canada

- i. A comparative morphologic analysis of adult onset leukodystrophy with neuroaxonal spheroids and pigmented glia--a role for oxidative damage. Ali ZS, Van Der Voorn JP, Powers JM. *J Neuropathol Exp Neurol*. 2007 66:660-672. PMID: 17620991
- ii. A rare form of adult onset leukodystrophy: orthochromatic leukodystrophy with pigmented glia. Shannon P, Wherrett JR, Nag S. *Can J Neurol Sci*. 1997 24:146-150. PMID: 9164693
- iii. Leukoencephalopathy with spheroids (HDLS) and pigmentary leukodystrophy (POLD): a single entity? Wider C, Van Gerpen JA, DeArmond S, Shuster EA, Dickson DW, Wszolek ZK. *Neurology*. 2009 72:1953-1959. Review. PMID: 19487654

8. Hypomyelination with atrophy of the basal ganglia and cerebellum

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Calgary Laboratory Services, University of Calgary, Alberta, Canada

- i. Schiffmann R, van der Knaap MS. Invited article: an MRI-based approach to the diagnosis of white matter disorders. *Neurology* 2009e;72:750-9.
- ii. van der Knaap MS, Linnankivi T, Paetau A, Feigenbaum A, Wakusawa K, Haginoya K, Kohler W, Henneke M, Dinopoulos A, Grattan-Smith P, Brockmann K, Schiffmann R, Blaser S. Hypomyelination with atrophy of the basal ganglia and cerebellum: follow-up and pathology. *Neurology* 2007e;69:166-71.

9. Amyotrophic lateral sclerosis with basophilic inclusions

(P62+ve, neurofilament +ve, no bunina bodies, TDP-43-ve and SOD1-ve)

J.M. Bilbao, L. Zinman, E. Rogaeva, B. Young and J. Robertson

Sunnybrook Hospital and the Tanz Centre for Research on Neurodegenerative Diseases, University of Toronto

- i. Yokota O, Tsuchiya K, Terada S et al. Basophilic inclusion body disease and neuronal intermediate filament inclusion disease: a comparative clinicopathological study. *Acta Neuropathol* (2008) 115:561–575
- ii. Kusaka H, Matsumoto S, Imai T. Adult-onset motor neuron disease with basophilic intraneuronal inclusion bodies. *Clin Neuropathol* 1993; 12: 215–218.
- iii. Yuji Mizuno, Masakuni Amari, Masamitsu Takatama, Hitoshi Aizawa, Ban Mihara, Koichi Okamoto. Immuno reactivities of p62, an ubiquitin-binding protein, in the spinal anterior horn cells of patients with amyotrophic lateral sclerosis. *Journal of the Neurological Sciences* 249 (2006) 13–18

10. Multiple system atrophy

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¹Department of Pathology, Division of Anatomic Pathology, ²Department of Medicine, Division of Neurology, Capital Health and Dalhousie University, Halifax, Nova Scotia

- i. Papp et al, *Brain* 1994;117:235-243
- ii. Lantos PL, *J Neuropathol Exp Neurol* 1998;57:1099-1111
- iii. Shrivastava A. *Radiology* 2007;245:606-607

11. Gliofibroma, intermediate grade

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¹Division of Anatomical Pathology, University of Alberta, Edmonton, AB; ²Division of Neuropathology, University of Alberta, Edmonton, AB.

- i. Friede, R.L. *et al.*, J. Neuropathol. Exp. Neurol. 1978. 37: 300-13.
- ii. Goyal, S. *et al.*, Acta Oncologia. 2007. 46: 1202-1204.

12. Cerebral fibro-osseous pseudotumour

M. Alturkustani, F. Haji, J. Megyesi, I. Gulka, A. Parrent and R. Hammond

London Health Sciences Centre

- i. Aiken AH, Akgun H, Tihan T, Barbaro N, Glastonbury C. Calcifying Pseudoneoplasms of the Neuraxis: CT, MR Imaging, and Histologic Features. AJNR Am J Neuroradiol. 2009 Apr 15.
- ii. Qian J, Rubio A, Powers JM, Rosenblum MK, Pilcher WH, Shrier DA, Stein BM, Ito M, Iannucci A. Fibro-osseous lesions of the central nervous system: report of four cases and literature review. Am J Surg Pathol. 1999 Oct;23(10):1270-5.
- iii. Rhodes RH, Davis RL. An unusual fibro-osseous component in intracranial lesions. Hum Pathol 1978; 9: 309-19.

13. Meningioma and related meningioangiomatosis

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Department of Pathology and Molecular Medicine, Queen's University and Kingston General Hospital, Kingston, Ontario

- i. S. Wiebe, D.G. Munoz, S. Smith and D.H. Lee. Meningioangiomatosis: a comprehensive analysis of clinical and laboratory features. Brain 1999; 122:709-726.
- ii. A. Perry, Ö. Kurtkaya-Yapicier, B.W. Scheithauer, S. Robinson, R.A. Prayson, B.K. Kleinschmidt-DeMasters, A.O. Stemmer-Rachamimov and D.H. Gutmann. Insights into meningioangiomatosis with and without meningioma: a clinicopathologic and genetic series of 24 cases with review of the literature. Brain Pathology 2005; 15(1):55-65.