23rd Annual Diagnostic Slide Session

Summary of cases

Case 1

There was a general agreement on a diagnosis of leprosy, though the specific type was somewhat debated. It probably represents an example of the very rare purely neural leprosy.

Finlayson MH, Bilbao JM, Lough JO: The pathogenesis of the neuropathy in dimorphous leprosy: electron microscopic and cytochemical studies. J. Neuropathol. Exp. Neurol. 1974, 33:446-455

Cochrane RG, Khanolkar VR: Dimorphous polyneuritic leprosy.

Indian J. Med. Sci. 1958, 12:1-9

Sell S: Immunology, Immunopathology and Immunity. Third edition 1980. Harper & Row, Hagerstown

Case 2

There was agreement that this represents a familial encephalopathy quite typical of Cockayne's syndrome.

Cockayne EA: Dwarfism with retinal atrophy and deafness.

Arch. Dis. Childhood 21:52-54 (1946) Cockayne's follow-up ten years after the original description of two cases.

Moosy J: The neuropathology of Cockayne's syndrome. J. Neuropath. Exp. Neurol. 26:654-660 (1967)

Soffer D, Grotsky HW, Rapin I, and Suzuki K: Cockayne syndrome: unusual neuropathological findings and review of the literature.

Ann. Neurol. 6:340-348 (1979)

Schmickel RD, Chu EHY, Trosko JE, and Chang CC: Cockayne syndrome: a cellular sensitivity to ultraviolet.

Peds 60:135-139 (1977)

Fujiwara Y, Ischihashi M, Kano Y, Goto K, and Shimizu K: A human photosensitive subject with a defect in the recovery of DNA synthesis after ultraviolet irradiation.

J. Invest. Derm. 77:256-263 (1981)

Case 3

There was a general agreement that this case was an example of a medulloblastoma with extensive ganglionic differentiation and possibly with some astrocytic differentiation.

Kane W, and Aronson SM:

Asta. Neuropath. (Berl.), 9:273 (1967)

Durity FA, Dolman CL, and Moyes PD:

J. Neurosurg. 28:270 (1968)

Case 4

There was general disagreement about the diagnosis in this puzzling case. The presenter believes that it represents a vascular malformation with a non-amyloid angiopathy possibly with the addition of a foreign body reaction to the contrast agent. The other discussants ranged among the diagnoses of gumma, amyloidosis, hypertensive vasculopathy with Binswanger's encephalopathy, possible amoebic encephalopathy, radiation change and plasmatic necrosis.

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Utterback RA, and Haymaker W: Fatal complications from the use of diodrast for cerebral and thyroid angiography. A clinico-pathological report of four cases.

J. Nerv. Ment. Dis. <u>116</u>:739-759 (1952) Shubert GE, and Adam A: Glomerular nodules and long-spacing collagen in kidneys of patients with multiple myeloma.

J. Clin. Pathol. 27:800-805 (1974)

Case 5

There was general agreement that the initial tumor in this youngster was a malignant teratoma which in its recurrence shows prominent embryonal carcinomatous elements.

Ingraham FD, and Bailey OT: Cystic teratomas and teratoid tumors of the CNS in infancy and childhood.

J. Neurosurg. 3:511-532 (1946)

Sweet WH: A review of dermoid, teratoid and teratomatous intracranial tumors.

Dis. Nerv. Syst. <u>1</u>:228-238 (1940)

Rubinstein LJ: Tumors of the CNS.

AFIP Fascicle 6: (1972)

Case 6

There was general agreement that this is an example of juvenile amyotrophic lateral sclerosis. There was less agreement about the nature of the intraneuronal inclusions and there was an extensive discussion of such structures.

Bonduelle M: Amyotrophic lateral sclerosis
Handbook of Clinical Neurology 22:281-338 Amsterdam (North Holland
Publishing Company 1978)

Aimard G, et. al.: Sclerose laterale amyotrophique survenue avant 40 ans: remarques a propo de 25 observations.

Rev. Neuro. 132:563-566 (Paris, 1970)

Iwata M, Hirano A: Current problems in the pathology of amyotrophic lateral sclerosis

Progress in Neuropathology 4:277-298 (Zimmerman HM ed., Raven Press, NY 1979) Schochet, et.al.: Intracytoplasmic acidophilic granules in the substantia nigra. Arch. Neurol. 22:440-444 (1980)

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Case 7

There was general agreement among the pediatric neuropathologists that this was an infarct secondary to compression of the anterior spinal artery complicated by hypotension.

Norman MG: Respiratory arrest and cervical spinal cord infarction following lumbar puncture in meningitis.

Canadian Journal of Neurological Sciences (in press).

Case 8

All the discussant's agreed that this was an example of Foix-Alajuoanine myelopathy and had nothing to do with swine flu vaccine. Tangentially, however, there was a discussion of the autopsy findings in swine flue vaccination and all who had seen such cases agreed that the findings were those of a post-viral allergic type encephalomyelitis.

Koeppen AH, Barron KD, and Cox JF: Foix-Alajouanine Syndrome Acta Neuropath. 29:187-197 (Berlin 1974)

Case 9

There was general agreement that this case represented the result of barbotage with periperhal demyelination, neuronal vacuolation and colloid inclusions. Some thought that the latter were the result of neurons stimulated beyond their capacity to respond since they are also seen in tetanus.

Kelly J, Asbury AK, and King JS: Neuropathologic effects of intrathecal water.
J. Neuropath. Exper. Neurol. 34, 388 (1975)
Shivapour E, Teasdall RD: Spinal myoclonus with vacuolar degeneration of anterior horn cells.
Arch. Neurol. 37, 451 (1980)