
YEAR BOOK[®]

YEAR BOOK OF NEUROLOGY AND NEUROSURGERY[®] 1989

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1989

The Year Book of NEUROLOGY AND NEUROSURGERY®

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Neurology

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Acta Cytologica
Acta Medica Scandinavica
Acta Neurochirurgica
Acta Neurologica Scandinavica
Alabama Journal of Medical Sciences
American Journal of Clinical Pathology
American Journal of Diseases of Children
American Journal of Medicine
American Journal of Neuroradiology
American Journal of Roentgenology
American Surgeon
Annales D'Oto-Laryngologie
Annals of Emergency Medicine
Annals of Neurology
Annals of Surgery
Archives of Disease in Childhood
Archives of Internal Medicine
Archives of Neurology
Archives of Surgery
Biological Psychiatry
Brain—Journal of Neurology
Canadian Journal of Neurological Sciences
Cancer
Cleveland Clinic Journal of Medicine
Clinical Orthopaedics and Related Research
Diabetic Medicine
Epilepsia
Experimental Neurology
Geriatrics
Headache
IEEE Transactions on BioMedical Engineering
International Rehabilitation Medicine
Italian Journal of Neurological Sciences
Journal of the American Geriatrics Society
Journal of the American Medical Association
Journal of Bone and Joint Surgery (American vol.)
Journal of Computer Assisted Tomography
Journal of Immunology
Journal of Laboratory and Clinical Medicine
Journal of Neurological Sciences
Journal of Neurology
Journal of Neurology, Neurosurgery, and Psychiatry
Journal of Neurosurgery
Journal of Nuclear Medicine
Journal of Pediatric Orthopedics
Journal of Pediatrics
Journal of Surgical Research
Journal of Trauma

Journal of Vascular Surgery
Laboratory Investigation
Lancet
Laryngoscope
Life Sciences
Magnetic Resonance in Medicine
Mayo Clinic Proceedings
Medicine
Movement Disorders
Nervenarzt
Neurochirurgia
Neurochirurgie
Neurology
Neuropediatrics
Neuroradiology
Neurosurgery
New England Journal of Medicine
New York State Journal of Medicine
Otolaryngology—Head and Neck Surgery
Pain
Pediatric Neurology
Pediatrics
Plastic and Reconstructive Surgery
Postgraduate Medical Journal
Postgraduate Medicine
Quarterly Journal of Medicine
Radiology
Revue Neurologique
Rofo: Fortschritte auf dem Gebiete der Rontgenstrahlen und der
Nuklearmedizin
S.A.M.J./S.A.M.T.—South African Medical Journal
Science
Semaine des Hopitaux
Southern Medical Journal
Spine
Stroke
Surgical Neurology
Virchows Archiv A: Pathological Anatomy and Histopathology

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NEUROLOGY

RUSSELL N. DE JONG, M.D.

ROBERT D. CURRIER, M.D.





Introduction

The YEAR BOOK that dealt with neurology in 1909, 80 years ago, was titled *Nervous and Mental Diseases* and was Volume 10 of the Practical Medicine Series under the general editorial direction of Gustavus P. Head, Professor of Laryngology and Rhinology at the Chicago Post-graduate Medical School. It was edited by Hugh T. Patrick, Professor of Neurology in the Chicago Polyclinic, and Charles L. Mix, Professor of Physical Diagnosis at Northwestern. In those days the editorial offices were at 40 Dearborn Street. The volumes were smaller, 237 pages, with a single column of type and few illustrations. Information on mental diseases occupied 10 pages at the very end. The rest of the book dealt with neurology and included a fair amount of new information on diagnostic testing and the neurologic examination, including comments on the plantar reflex. Did this reflect the relative importance of the two fields, or the editors' interests? Nearly 30 pages contained information on the neuroses: hysteria, neurasthenia, epilepsy, migraine, ambulatory automatism, and chorea. The last section in the main body of the text was entitled "Miscellaneous Nervous Diseases," which included tic, torticollis, Raynaud's disease, myopathy, myatonia, myasthenia, acromegaly, and other organic diseases. The difference between the neuroses and this last category of disease is something that I have difficulty with. The term *neuroses* did not have the same meaning then. But hysteria and neurasthenia were neurotic manifestations then, as now. Why epilepsy and migraine were included with the neuroses escapes me. It seems obvious that they were considered organic diseases, as shown by the choice of articles selected on organic treatments.

As I mentioned in last year's YEAR BOOK OF NEUROLOGY in my comments about the 1908 volume, one of the most impressive things about that volume is the nearly total lack of any comment on stroke as a disease; this is true of the 1909 volume as well. There are a few pages on cerebral hemorrhage and hemiplegia, but no speculation as to the causes of stroke per se, no comment on treatment, and no pathologic study except for hemorrhages. Another similarity is the total absence of comments on the disease we call amyotrophic lateral sclerosis in the 1909 (and the 1949) YEAR BOOK.

The few pages on mental disease include just a single note on schizophrenia (dementia praecox), a review of a paper by Kanavel, Pollock, and Eustace (*Illinois Medical Journal*, September 1909) on thyroidectomy for dementia praecox. Following the lead of Berkley and Follis, who found improvement in 5 of 8 thyroidectomized schizophrenics, Kanavel et al. operated on 11 patients with schizophrenia, 8 of them catatonic. They removed seven eighths of either the right or the left lobe and in 3 cases also the parathyroid glands. The outcome is unstated and the summary does not conclude that thyroidectomy is a treatment for schizophrenia, but only that continuation of the investigation seems justifiable in early cases.

Considerable space is occupied with discussion of aphasia, based on an article by Moutier in the *Gaz. des Hop.*, Oct. 1, 1908.

No introduction to the 1909 YEAR BOOK was provided. Forty years ago, however, when Roland Mackay took over from Hans Reese the editing of the neurologic portion of the YEAR BOOK OF NEUROLOGY, PSYCHIATRY AND NEUROSURGERY (1949), he provided a well-balanced introduction. I never met Dr. Mackay, but his fame was general 40 years ago in the Midwest. He was a thorough, thoughtful, and painstaking man. He once told my father to send me over for training sometime, but I never made it. Perhaps I should have.

Much of his introduction as a new editor was devoted to the relationship between neurology and psychiatry and his pleasure at the fact that the two are joined and that persons training in one or the other are required to know something of the sister specialty.

It was absolutely impossible to predict 40 years ago the direction neurology has taken. Neurology now is a rugged specialty. It is demanding both intellectually and emotionally and the rewards are not outstanding.

Years ago when neurology was a division of Internal Medicine at the University of Mississippi, the head of Medicine, Bob Snively, a wonderful man, found me one late afternoon gloomily staring into a corner. When he asked what the trouble was, I replied that the patients were ill and, no matter what we did, not infrequently died and I couldn't fathom what we were doing wrong. He said, "Hmmmm, yes" and went on his way.

The next day he came by and said, "Currier, you know, you are in a tough racket." His comment cheered me considerably, and I have often taken solace from it over the years when backed into a corner by that one particular law of nature. I have come to agree with his assessment of neurology more and more completely. The diseases we deal with as neurologists are treacherous and often subject to irregular recurrent disequilibrium. Since the passing of the time when neurologists could reap financial rewards from doing arteriograms, neurology has not been a highly paid specialty. The neurologist must respond at all times of the day or night, so neurology cannot be practiced in its completeness in a 40-hour week. In short, it is a tough, demanding, punishing, highly intellectual field that is not attractive to the majority of medical students in spite of being "the Queen of the Arts," as Bert Sprockin says. Recruiting has never filled the slots in training programs. In addition, neurology now requires a greater knowledge of internal medicine than of psychiatry.

Thus, should we not give credit for neurology board purposes for internal medicine training time to those who have had a change of heart and wish to become neurologists? Internists do, after all, make excellent neurologic physicians, and to tell them that they must undergo the entire neurologic 3 years of training, allowing no credit for internal medicine, is a mistake. We are missing many good people who could otherwise be included in our brotherhood. Therefore, why don't we allow a year of credit for neurology board eligibility if full training in medicine has been completed in the last 5 years? Our closest allies are, after all, not the neurosurgeons and not the psychiatrists, but the internists. Let us openly acknowledge that fact and open the door to neurologic training of inter-

nists. All right now, all you defenders of psychiatry, rise up and smite me.

The YEAR BOOK of 1949 contains, amazingly enough, a review of an article by Dewey Ziegler on familial periodic paralysis. Dr. Ziegler, still in his prime, has an article on headache reviewed in this YEAR BOOK (Abstract 8-5). Is this a record for continued YEAR BOOK reviewed productivity? Maybe not, since Macdonald Critchley is still going strong. But a startling discovery is also in the 1949 edition: Clara Torda and Harold Wolff reported in July 1949 (*Proc Soc Exp Biol Med* 71:432-435, July 1949) on the treatment of 5 women with myasthenia gravis. They gave 20 mg of ACTH every 6 hours for a total dose of 400 mg. The patients gradually became weaker until the second day after completion of the injections (the seventh day after starting the injections), and then went into a period of partial improvement, which at the time of writing had lasted 3 months.

Although they did not understand that they were treating an immune disease, I believe that this comment precedes any other report of steroid or ACTH treatment of myasthenia gravis.

Dr. Armin Haerer, Dr. DeJong, and I would like to make special mention of the colleagues we have lost in the last year.

After a long illness, Torben Fog died at his home in Copenhagen on April 19, 1987. A founding editor of *Acta Neurologica Scandinavica*, he was also for many years secretary of the World Federation of Neurology's Research Group on Multiple Sclerosis. The work of this Research Group will continue under the leadership of the co-chairmen, Reginald Kelly, Byron H. Wachsman, and Y. Kuroiwa.—R.N. DeJong, M.D.

On February 11, 1988, American neurology suffered a significant loss with the death of Dr. Thomas Richard Johns II. Born in West Virginia, he studied at Harvard Medical School and trained with Drs. Alpers and Merritt. Known as T.R. by his friends, he made major contributions to the field of neuromuscular disease, especially myasthenia gravis. As chairman of Neurology at the University of Virginia Medical Center since 1967, he was a fine leader and teacher. He held numerous important advisory positions in neurology; his advice was sought and appreciated by many. He had a history of heart disease, but kept on working until he died at his desk at the age of 63. We will all miss him.

Bruce Schoenberg, M.D., Dr. P.H., died on July 14, 1987, after a short illness. As Director of Neuroepidemiology at NINCDS, Dr. Schoenberg was in a unique position to promote international understanding of neurologic disorders by promoting cooperative studies of incidence and prevalence. At the time of his death he had helped to coordinate projects in many parts of the developed and undeveloped world. He was persistent and adamant in demanding the attention of neurologists and other health care professionals toward proper epidemiologic assessments. He was a major contributor to the latest revision of the ICD, was interested in the history of neurology, and was active in many other areas. Almost to the day of his untimely death he continued to write papers and advise colleagues on directions for present and future research. Although he was a

true whirlwind of activity, he was always calm, friendly, and kind. He will be sorely missed.—A.F. Haerer, M.D.

Dr. Bruce Schoenberg was an amazing individual and a good friend to both Armin and me. In his own epidemiologic teams he was at least 4 to 5 SD from the mean. He had his hand in everything, or so it seemed. At meetings there he would be, illuminating all at the conference table both with his smile of greeting and his balanced, thoughtful common sense.—R.D. Currier, M.D.

Dr. A.B. Baker died on January 18, 1988, after a long illness. He was a first-rate example of the right man at the right time. He stimulated and prodded neurology, ignoring or bypassing those who impeded its growth, until he formed the larger than most believed possible, some say larger than life, neurologic establishment now existing in the United States.

Most didn't believe his predictions of growth or need. I didn't. But he was right and I wrong. He did other things, too.

When I was in medical school, my father one Sunday afternoon mused that "some of the young fellas down at French Lick were starting a new society." I suspect that he thought it was a good thing. Earlier, in the 1930s, he had written to the American Neurologic Association requesting a membership application and was duly notified that admission was by invitation only. There was no other neurologic organization in this country then.

Dr. Baker, Frank Forster, Ady Sahs, Russell DeJong, Pearce Bailey, Howard Fabing, and with the help of many others, started a new organization, the American Academy of Neurology. They, with Baker at the lead, stimulated the federal government to finance training programs in neurology. He and they are in a true sense, our founders. They fostered and promoted our growth. We owe them much.

Dr. Baker was known as a teacher, investigator, organizer, writer, and leader. He was prominent in the development of American neurology. Our sympathy goes to his wife and family.—R.D. Currier, M.D. and R.N. DeJong, M.D.

Ray Bauer, a good friend from Michigan days, died in March. Ray was a happy, friendly, competent neurologist at Wayne State University and when I first knew him, he was very interested in cerebrovascular disease. He developed a chronic illness in spite of which he in his later years founded the Michigan Parkinson Foundation, thus activating a situation of mutual regard and respect.

He was an exceptionally clear-thinking and honest man whose loss is felt by all who knew him.—R.D. Currier, M.D.

Robert D. Currier, M.D.

1 Diagnosis

The Utility of Cerebrospinal Fluid Examination in Patients With Partial Epilepsy

Thompson J, Salinsky M (Univ of Wisconsin, Madison)

Epilepsia 29:195–197, 1988

1–1

Computed tomography (CT) is especially effective in evaluating patients with partial seizure disorders, but the value of cerebrospinal fluid (CSF) analysis is uncertain. Of 95 patients with adult-onset partial epilepsy whose initial assessment included both CSF analysis and CT scanning, 24 had a CSF abnormality not temporally related to seizures. In 4 patients, CSF study confirmed subarachnoid hemorrhage; 19 patients had an isolated mild rise in CSF protein, 8 of whom had a structural lesion on CT. Follow-up of the other 11 patients for a mean of 5 years showed no evidence of a focal lesion or more frequent seizures.

The clinical significance of mildly elevated CSF protein in patients with partial seizure disorders is not clear. Examination of CSF does not appear to be necessary in the routine evaluation of new adult-onset partial seizure disorders as long as CT is performed. In none of the present patients did CSF analysis provide added diagnostic information unless it was specifically indicated, such as for suspected bleeding or multiple sclerosis.

► Here we find that a routine spinal fluid examination in patients with partial epilepsy is not helpful unless there are signs that would lead you to suspect subarachnoid hemorrhage or tumor. I can remember years ago having sharp discussions with a fellow resident, who had received part of her training elsewhere, about the necessity of spinal fluid examination as part of an epileptic work-up. She thoroughly believed in it.—R.D. Currier, M.D.

Neuro-Ophthalmological Complications of Coronary Artery Bypass Graft Surgery

Shaw PJ, Bates D, Cartlidge NEF, Heaviside D, French JM, Julian DG, Shaw DA (Univ. of Newcastle-upon-Tyne; Freeman Hosp, Newcastle-upon-Tyne, England)

Acta Neurol Scand 76:1–7, July 1987

1–2

Visual disorders are among the neurologic complications of heart surgery, but they are seldom reported. Because postoperative visual dysfunction is likely to distress the patient, it is important to identify the range of visual disorders that may develop after heart surgery. This study describes the postoperative ophthalmologic abnormalities that occurred in a

series of 312 patients who had undergone coronary artery bypass graft (CABG) surgery.

Patients were assessed preoperatively by fundoscopy, confrontation visual field examination, Jaeger chart measurement of visual acuity, examination of eye movements, and evaluation of cortical aspects of visual function. Patients were assessed postoperatively and at 1 month and 6 months after operation. A control group of 50 patients scheduled for major peripheral vascular surgery were also evaluated preoperatively and postoperatively.

In approximately 25% of the study group postoperative neuro-ophthalmologic complications developed, including areas of retinal infarction, retinal emboli, visual field defects, reduction of visual acuity, and Horner's syndrome. In the control group that did not undergo extracorporeal circulation during surgery, there were no ophthalmologic complications. At 6 months, 10 patients still had detectable neuro-ophthalmologic abnormalities, but only those with persistent visual field defects had functional disability.

Because findings indicate that neuro-ophthalmologic complications can occur after CABG surgery, patients should be advised that they are at risk for these problems. Improvements in CABG procedures may make it possible to prevent the formation of microemboli.

► This study reveals that in one fourth of the patients who undergo CABG surgery some type of neuro-ophthalmologic complication develops. They should be informed of this possibility before surgery. Prolonged duration of heart disease and a major drop in hemoglobin level during surgery predispose to such complications.—R.N. DeJong, M.D.

Cerebral Blood Velocity in Subarachnoid Haemorrhage: A Transcranial Doppler Study

Compton JS, Redmond S, Symon L (Inst of Neurology, London)
J Neurol Neurosurg Psychiatr 50:1499–1503, 1987

1–3

Since radiologically identifiable spasm of the major intracranial arteries after subarachnoid hemorrhage (SAH) was first described in 1915, controversy has surrounded its prognosis, relationship to neurologic state, and effect on investigation and treatment. A study was done to examine the relationship between cerebral blood velocity, appearance of the cerebral vasculature on angiogram, cerebral blood flow, and patients' clinical condition and progress to determine its efficacy in confirming the presence of vasospasm.

Transcranial Doppler ultrasound was used to determine cerebral vasospasm after SAH in 20 patients. In addition, a control group of 21 healthy persons and a group of 26 patients with other intracranial pathologies were studied. The Doppler flow velocity was significantly higher when vasospasm was present. If it was higher than 100 cm/second, 80% of the patients had vasospasm. If it was lower than 100 cm/