From the retired

50 years in neurology, a retrospect

Lord Walton of Detchant
Former Professor of Neurology, University of Newcastle upon Tyne; Former Warden, Green College, Oxford; Former President, World Federation of Neurology
Practical Neurology, 3, 52–55

I had not come across Practical Neurology until I received a recent issue from the Editor. Having now seen it, I am impressed by its content and format and was particularly interested to read two of the articles. The first on myositis reminded me of my second monograph, published with Raymond Adams in 1956, which was on the topic of polymyositis. I also enjoyed the article by Julian Fearnlly on superficial siderosis of the nervous system, because Bernard Tomlinson and I published a comprehensive review of the topic and reported a case resulting from an ependymoma of the lateral ventricle back in 1964. Reading these articles and others giving practical advice to practising neurologists led me to reflect, now that I am 80 years of age, on my early years in neurology and on some lessons I have learned during a lengthy career in teaching, research and clinical practice.

When I became house physician to the late Professor FJ Nattrass (author of a popular textbook called The Commoner Nervous Diseases) at the Royal Victoria Infirmary (RVI) in Newcastle in 1946, I well remember that if a patient was then diagnosed as suffering from tuberculous meningitis, he or she was immediately transferred to a side-room under heavy sedation because no-one with that disease had ever been known to recover. And I was concerned that the chief would not allow any patient diagnosed as suffering from disseminated sclerosis (not then ‘multiple’) to have a lumbar puncture, because there was a widespread belief that this caused clinical deterioration. Goodness knows how many patients with spinal cord compression due to tumours or spondylosis must have been missed, because cervical spondylotic myelopathy had not then been characterized and myelography was rarely, if ever, performed. Goodness knows, too, how many patients were damaged by radiotherapy to the cervical cord, at the time a popular treatment for syringomyelia. The oft-quoted statement that neurology was then almost entirely a diagnostic and not a therapeutic speciality did have some justification. But clinical diagnosis was not invariably accurate, often, indeed, being speculative, as even air encephalography or other contrast studies, could only be carried out by transfer to a neurosurgical ward.

After military service and on becoming a medical registrar in Newcastle, I began a survey of cases of subarachnoid haemorrhage, publishing my MD thesis and subsequently a monograph. Before then, under the influence of the great Sir James Spence, whose houseman I also was, I leaned towards a career in paediatrics, but during my medical registrarship I worked with the legendary Henry Miller of the black jacket, grey waistcoat, pin-striped trousers and carna-
tion in the button-hole. At that time he was making his way as an assistant physician at the RVI, and in private practice, and was locally known as Henry Gorgeous Miller. During his service in the Royal Air Force as a neuropsychiatrist, he had acquired a diploma in psychological medicine, which he subsequently suppressed because he often offended psychiatrists by referring to their discipline as ‘neurology without physical signs’. When asked if he practised psychiatry, he replied ‘only in private practice’!

As my two-year registrarship drew to a close, I was invited by Professor Nattrass to assist him in some research into muscular dystrophy and other neuromuscular diseases, and so had to learn electromyography, which I did at St. Thomas’s Hospital in London with Dr Philippe Bauwens and at the National Hospital, Queen Square with Bill Cobb. I also did the EEG course and found myself, on returning to Newcastle, being required to interpret all the EEGs (then recorded in the Department of Psychological Medicine, headed by Alexander Kennedy). But as I embarked on a comprehensive study of the clinical manifestations and genetics of muscular dystrophy in the north of England, I soon recognized that clinical history-taking and examination, and the EMG, were not enough. And so, with a Nuffield Foundation Travelling Fellowship, I spent a year with Raymond Adams at the Massachusetts General Hospital in Boston where I learned muscle pathology. But even that fine neurologist and teacher, and master of clinicopathological correlation, did – rarely – fall into error, as indeed we all do. In particular, I remember him diagnosing a patient who was clearly suffering from muscular dystrophy as a case of polymyositis because the muscle biopsy demonstrated striking areas of focal necrosis of muscle, which he averred did not occur in muscular dystrophy. Some years later, he recognized that such changes are indeed common in that condition.

After a fruitful year with Carmichael in the Neurological Research Unit at Queen Square, where I was stunned by the clinical expertise and diagnostic brilliance of people like Sir Charles Symonds, I returned to the RVI in Newcastle. I became first assistant to Henry Miller, who by then had been confirmed as the first consultant neurologist in Newcastle, and in 1958 I myself became the first consultant neurologist...
to the Northern Region, based at the Newcastle General Hospital. The appointment involved a weekly 'open' out-patient session for general practitioner referrals at the General Hospital, a weekly 'closed' clinic at the RVI for consultant referrals only, and two other 'closed' clinics held fortnightly at Durham 20 miles away, and at Middlesbrough, 45 miles away. As it was then expected that one would carry out domiciliary consultations with general practitioners, which were very popular in the 1960s, I was regularly travelling 20,000 miles a year and seeing upwards of 40–45 new patients every week. I remember especially being asked by the late Dr Waldie of Great Ayton in North Yorkshire to see a patient with him; the round trip of 120 miles was worth it as the patient proved to have acute intermittent porphyria. In those days the general practitioner invariably attended in what was a genuine domiciliary consultation. But exhaustion occasionally supervened when, for example, on one Monday I saw 12 new patients in my morning clinic at the Newcastle General Hospital and then ate a sandwich in the car on my way to Middlesbrough where I saw eight new patients referred by consultants followed by another four ward consultations in Middlesbrough and Stockton. Returning home at 9.45 pm, I was met by my wife who said 'Don't put the car away, there's a domiciliary in Birtley' – a patient who proved to have had an anterior spinal artery thrombosis. And for 10 years, until I received a personal chair, I also saw private patients at my home on two afternoons and evenings every week.

On appointment as a consultant I was allowed four beds on GF Rowbothams's ward at the General Hospital to which I could admit patients requiring air studies, angiography and the like, but I also had 14 beds at Chester-le-Street General Hospital, 12 miles away, to which patients could be transferred for on-going care and rehabilitation. And I shared the services of a secretary with three other consultants. Plainly...
this clinical load was, even by the standards of yester-year, excessive but the experience was invaluable.

I managed to obtain some research facilities under grants from various muscular dystrophy organizations to employ research assistants in clinical neurophysiology, biochemistry and neuropathology. And, above all, at last I had, in Rosemary Allan, full-time secretarial help paid for on a grant. Research opportunities escalated when the Regional Neurological Centre opened in 1962 at the General Hospital, and Jack Foster joined me as a consultant and took over some of my regional responsibilities. For the first time we then had a dedicated neurology ward of 32 beds, with greatly improved investigational and research opportunities. Eventually, with private money, we built the Muscular Dystrophy Research Laboratories adjacent to the Regional Centre, and ultimately attracted grants from the Muscular Dystrophy Associations of America and Canada, the Muscular Dystrophy Group of Great Britain, the Medical Research Council and the Wellcome Trust.

Even in the 1960s and 1970s, few of us foresaw the huge developments that were to occur in neurology in the succeeding decades. The virtual conquest of bacterial infection, the vast improvements in diagnosis achieved with computerised tomography, nuclear magnetic resonance, Doppler imaging, and so many more, have transformed clinical practice with immense benefit to patients and neurologists alike. Burgeoning developments in molecular biology, including the prospect of stem-cell therapy and gene transfer, have brought new hope to many patients suffering from neurological disorders. But in the UK we even now have far too few neurologists, carrying much too heavy a clinical load; thus, most patients with stroke are still cared for by general physicians and geriatricians. Hence it is rarely feasible to follow the example of the cardiologists by admitting patients with strokes to hospital rapidly, carrying out brain imaging at once to identify infarcts as distinct from haemorrhage, and to give thrombolysis within 3 hours. One can but hope that the expansion in consultant numbers and in facilities now envisaged by the current UK government will prove possible.

To have witnessed these and so many other major developments has been, for me, a period of great excitement. Were I starting again, I am sure I would have wished to spend a period of intensive study of a basic scientific discipline such as molecular biology in order to inform my research methods and clinical practice, and it is good to see that many young people in neurology are following that road. But I must express some concern over what I see as the possible erosion of clinical skills resulting from the scientific revolution. Years ago, as a visiting professor in Miami, I was examining a patient who had pins and needles in the ring and little fingers of her right hand and wasting of all the small muscles. She had been subjected to no fewer than three cervical laminectomies because of modest bulges of her intervertebral discs demonstrated by myelography. But when I questioned the senior resident as to whether such clinical features were a common consequence of cervical myelopathy, she said ‘Gee doc, it’s no good asking me; I didn’t do upper limb in anatomy.’ I then suggested the possibility of a cervical rib, but was told that no such lesion was shown on X-ray. However, when I rolled the cords of the brachial plexus under my fingers above the clavicle, this reproduced her symptoms. Subsequent surgical division of a fibrous band attached to the first rib (the surgeons took some persuading), which was compressing the inner cord of the plexus, relieved her symptoms. Much more recently, I was asked to see a patient who was about to undergo magnetic resonance spectroscopy to study the metabolism of his skeletal muscles. He had been diagnosed as a case of Becker muscular dystrophy in view of the widespread hypertrophy of skeletal muscles that caused pain and aching on exertion and marked slowness of gait. By the time I saw him, he had already undergone electromyography and a muscle biopsy (the latter had proved negative and the EMG was equivocal). The senior resident in the unit had been trained in endocrinology, and it was plain that the patient had not been fully examined. All his reflexes were exceptionally slow, he had a deep voice, uniform enlargement of the thyroid and other features clearly demonstrating that he was suffering, at the age of 17, from Hoffman’s syndrome due to hypothyroidism. I mention these two cases, not in any attempt to publicise my diagnostic acumen, since like all clinical neurologists I can well remember many painful errors of my own, but simply to stress my view that the skills of clinical history-taking and examination and assessment of the whole patient, and not solely of the nervous system, remain the cornerstones of clinical neurology and practice. This theme will, I am sure, continue to be the objective of the articles to be published in Practical Neurology.