

EDITORIAL : VAN DIE REDAKSIE

NEURORADIOLOGY

The present-day battle to extend the horizons of surgically treatable neurological disease is being fought in radiology departments rather than in operating theatres. Accurate pre-operative localization of intracranial and intraspinal lesions has been the most potent stimulus to neurosurgical progress in the past decade. Pneumo-encephalography and cerebral angiography have paved the way for the evacuation of cerebral haematomas in strokes, for chemopallidectomy in Parkinson's disease, and for a direct surgical assault upon the causes of subarachnoid haemorrhage. These contrast investigations have become so accepted a part of the correct management of such patients that it is hard to envisage a craniotomy being performed without them, and the neurosurgeon that does so nowadays lays himself open to a charge of negligence if things go wrong.

It is 45 years since Dandy first replaced the ventricular fluid of the brain with air for radiodiagnostic purposes, and 36 years since Moniz performed the first carotid arteriogram in Lisbon. Both Dandy and Moniz were neurosurgeons and therefore more interested in the surgical than in the specific radiological problems involved. No real technical progress was made until the equipment was improved and radiologists took control of the procedures. The introduction of the Lysholm-Schonander craniograph table in Stockholm in the early 1930s signified the beginning of neuroradiology as a separate discipline, and radiologists, like Lysholm and Twining, were its first exponents. Radiologists studying only nervous diseases and trained to perform the appropriate contrast procedures are already scattered over the whole world. The Symposium Neuroradiologicum, to be held in New York next year, is the seventh of its kind since 1939. For the surgeons to hand over control of their X-ray procedures to radiologists has not been easy, and complete abdication has so far come only in Sweden and England and in units taking their initiative from these countries. This is because of the shortage of neuroradiologists rather than for any other reason—their indispensable part in the proper study of organic disorders of the nervous system and its appendages is no longer disputed.

What, then, is the neuroradiologist's field? Atrophy, aneurysms and expanding lesions of the brain are the

everyday problems—the uncovering of organic disease and particularly the surgically operable lesions. It is a small one, and all its geographical boundaries are bone—the cranium and the vertebral column. Unless there is focal bone involvement (e.g. meningioma, fracture or intervertebral disc) or a deviated pineal gland, the neuroradiologist relies upon contrast procedures. They are:

1. Angiography—carotid and vertebral, intra- and extracerebral.
2. Encephalography with air and ventriculography with air or 'myodil'.
3. Brain scanning with radioactive isotopes.
4. Myelography with myodil or air.

Although the type of investigation carried out is only partly the neuroradiologist's decision, its execution is entirely in his hands. The saying 'The man that does the investigation reads the films' is truer in reverse, for only the person giving the radiological opinion can judge how complete the radiological investigation should be. Mastery of technique is probably more important than the opinion, and an incomplete set of films more culpable than a misdiagnosis. Consequently, a neuroradiologist's hands are tied if either his equipment or his radiographer is inadequate, or if he has incomplete control over the procedures carried out in his department.

Several neurological idols have toppled as a result of accumulated experience with neuroradiological procedures. Carotid angiography is undoubtedly safer in some patients than lumbar puncture, and it may yet become the first elective diagnostic procedure in neurology. The lumbar theca may be damaged at lumbar puncture, and an encephalogram attempted too early after it may result in the injected air passing into the subdural space. A good rule, therefore, is always to inject air at the time of the first lumbar puncture. Pneumoencephalography yields far more information about the brain and its coverings than ventriculography, and it is essential for investigating cortical atrophy. However, if intracranial hypertension is suspected, encephalography (and lumbar puncture) should be avoided, and the procedure of choice is either ventriculography or carotid angiography. In general, air will outline the size and extent of a growth while angiography may give some clue to its nature.

MODERNE EERSTEHULP EN VOORKOMING VAN ONGELUKKE

Soos ons reeds al voorheen aangetoon het,¹ het ons eksterne milieu gedurende die afgelope dekades in baie opsigte radikaal verander. Ons is van dag tot dag blootgestel aan die vernietigende gevolge van praktiese lewensomstandighede wat letterlik handuit ruk.

In hierdie verband is dit goed om daarop te wys dat die meeste van ons bewus is van die feit dat die getal sterfgevälle as gevolg van beserings wat deur ongelukke ver-

oorzaak word, by die dag toeneem. Wat ons egter nie almal weet nie, is dat ongelukke wat in en om die huis en op die speelvelde voorkom, meer lewens eis as pad- en bedryfongelukke tesame.

Hieruit spreek dit duidelik dat dit die plig is van elke burger, en tewens van elke kind bo die ouderdom van 10 jaar, om met die belangrikste beginsels van eerstehulpverlenging kennis te maak en om mettertyd lid te word

van een van die drie groot eerstehulpverenigings in die Republiek van Suid-Afrika, naamlik die St. John, die Rooikruisvereniging, en die Noodhulpliga.

'n Merkwaardige verhandeling, getitel *Principles for First Aid for the Injured*, deur snydokters Proctor en London van die Birmingham-ongevallehositaal, is deur Butterworths van Londen in 1962 gepubliseer, en die belangrikheid daarvan word in die voorwoord deur die hoofsnidokter van die St. John-organisasie en die mediese raad-gewer van die Rooikruisvereniging benadruk. Daarin verwelkom hulle die uitgawe omdat die outeurs, hoewel hulle die hoogste waardering het vir die uitnemende werk wat deur vrywillige eerstehulpmense gedoen word, niemin besef dat daar op hulle 'n groot verantwoordelikheid rus om eerstehulpmense in verband met eerstehulpverlening ten volle op die hoogte te hou, want hoe nouer die samewerking tussen hulle wat die ongeluk die eerste sien en hulle wat die geval uiteindelik behandel, hoe groter is die kans op oorlewing.'

Die Afrikaanse uitgawe *Moderne Eerstehulp en Voorkoming van Ongelukke*, met die Engelse uitgawe, *Modern First Aid and Accident Prevention*, is deur dieselfde beweegredes geïnspireer en behandel dieselfde beginsels, wat universeel is. Dié handboek verskil in twee opsigte van bovermelde publikasie: dit bevat baie ver wysings en wenke aangaande die voorkoming van ongelukke, en dit is in eenvoudige, nie-tegniese taal opgestel sodat dit deur oningewydes maklik gelees en verstaan kan word. Die doel van die uitgawe is om as aanvulling te dien tot wat reeds beskikbaar is, soos die uitstekende eerstehulphandboeke wat uitgegee is deur die St. John-

organisasie, die Rooikruisvereniging en die Noodhulpliga.

Hierdie boek oor eerstehulp en die voorkoming van ongelukke is deur die Padvindere van Suid-Afrika aanvaar as die basis vir hul onderrig in eerstehulp, en dit is ook deur die Mediese Vereniging van Suid-Afrika goedgekeur. Dit is saamgestel deur 'n aantal spesialiste in verskillende vertakkinge van die geneeskunde en verwante wetenskappe, en die samestellende skrywer het gesorg vir uitstekende illustrasies en 'n heldere en logiese uiteensetting van al die fasette van eerstehulpliga.

By eerstehulp, soos in die geval van die geneeskunde in die algemeen, bestaan daar nie so iets as 'n dubbele maatstaf nie. Die metode wat deur 'n kind aangewend word, verskil in geen opsig van die wat 'n volwasse toepas nie— behalwe in graad. Almal kan dus voordeel trek uit die feit dat alle vorms van mediese en chirurgiese noodgevallen bespreek word. Die nuutste en mees moderne metodes word beskryf, en wel op so 'n wyse dat enige persoon wat in 'n noodtoestand daarvolgens handel, in staat sal wees om lewensreddende hulp te verleen.

Ons wil dus, namens die mediese professie en die Mediese Vereniging van Suid-Afrika, ons hartlike steun aan dié publikasie toesê.

Die opbrengs van die twee uitgawes gaan ten bate van die Nasionale Raad vir die Versorging van Kreupeles in Suid-Afrika. Die boeke is verkrygbaar van, en word versprei deur die Sentrale Nuusagentskap. (Kyk ook na bladsy 1016 van hierdie uitgawe van die *Tydskrif*, waar die Engelse uitgawe *Modern First Aid and Accident Prevention* bespreek word.)

1. Van die Redaksie (1963): S. Afr. T. Geneesk., 37, 858.

MAN AND HIS FUTURE

An extremely important and stimulating Ciba Foundation volume, *Man and his Future*,¹ was recently published in London. This volume records the proceedings of an international symposium on the biological future of man.

One of the aims of the organizers of the symposium was to stir the imagination, speed the flow of information, and generally hasten the progress of work in medical and biological research. The world is still largely unprepared socially, politically and ethically for the advent of nuclear power. Now, biological research is in a ferment, creating and promising methods of interference with natural processes which could destroy or transform nearly every aspect of human life which we value.

It is therefore urgently necessary for intelligent individuals of every description to consider the present and imminent possibilities for mankind. Man must be prepared to defend what he holds good for himself and his neighbours, and, more importantly, to use the immense creative opportunities for a happier and healthier world. This book should make people think on these lines.

The proceedings recorded in *Man and his Future* were initiated by a public lecture under this title by Sir Julian Huxley, after which 27 distinguished people from different parts of the world and from different scientific disciplines joined in contributing to the proceedings of the conference.

Prof. J. F. Brock, from Cape Town, read a paper on 'Sophisticated diets and human health' which provoked a discussion ranging from the population explosion and

world food supplies to the possible long-term effects of antibiotics, oestrogen hormones and trace metals used in agriculture and animal breeding or included in modern processed and canned foods. The final paper was read by J. B. S. Haldane, who, after a career in physiology and genetics in Cambridge and London, is spending his retirement in a genetics and biometry laboratory in India.

The range of the discussions is represented by three questions asked by Haldane: (1) What evolutionary trends may be expected for humanity in the absence of conscious control? (2) What evolutionary trends are possible and what desirable if conscious control is achieved? (3) How far must the answers to these questions be modified if extra-terrestrial environments are occupied?

The symposium, quite understandably, failed to answer any of these three questions. But it did achieve a great deal in provoking thought and in putting the many and varied problems with which we are faced today, in their true perspective.

The chair was occupied by Lord Brain, the well-known London neurologist and philosopher; and the Ciba Foundation for the Promotion of International Cooperation in Medical and Chemical Research, by producing this stimulating volume, once again did justice to their high reputation for the verbatim reports which they publish on symposia and study groups arranged each year in a variety of fields of medical and chemical investigation.

1. Ciba Foundation Volume, ed. Wolstenholme, G. (1963): *Man and his Future*. London: Churchill.