

## EDITORIAL : VAN DIE REDAKSIE

## DISSEMINATED SCLEROSIS

Multiple sclerosis (MS) or disseminated sclerosis is the greatest cause of chronic disability in young adults in Europe and North America. The total number of persons afflicted with this disease is not known, but there are estimated to be 80,000 patients with diagnosed MS in the United States alone.

It is usually a disease of exacerbations and remissions owing to disseminated or multiple areas of demyelination in the central nervous system. Early symptoms are usually mild and transient, frequently no more than a blurring of vision, diplopia or numbness of a part of the body. There may follow a series of recurrences resulting over the years in progressive disability, including severe incoordination, instability of gait, spasticity, and ultimately paralysis with urinary incontinence.

The cause of multiple sclerosis is unknown. It has been attributed to infection,<sup>1</sup> allergy,<sup>2</sup> a high-fat diet,<sup>3</sup> or a lack of certain trace elements. A demyelinating disease in sheep, swayback disease, can be prevented by feeding the sheep copper, and four research workers in swayback disease developed a multiple sclerosis-like syndrome suggesting an infective cause.<sup>4</sup> Perhaps multiple sclerosis is related to swayback or to another demyelinating disease of sheep scrapie.

It has long been known among South African physicians that multiple sclerosis was very uncommon among the White South African-born, although quite common among immigrants from Europe to South Africa.<sup>5</sup> No authenticated case of the disease has been described among the South African Bantu, although it does occasionally occur among the Coloured and Indian people of South Africa. In fact it is so uncommon among the South African-born that there have been reputable neurologists who considered that it did not occur and that the reported cases were a form of encephalitis. In the *South African Medical Journal* this week we publish accounts of a South African-born White man from Bloemfontein and two women from the Cape who were diagnosed as having multiple sclerosis during their lifetime and in whom the diagnosis has been subsequently confirmed by histological examination of the central nervous system after they died (pages 386 and 389).

The low prevalence of multiple sclerosis among the South African-born population may well be the vital clue to its aetiology. Acheson has pointed out that in the Northern hemisphere, both in Europe and North America, it is more prevalent in high latitudes than in low latitudes and he has emphasized the importance of making similar studies in the Southern hemisphere.<sup>6</sup> Kurland has shown that in the United States the prevalence of multiple sclerosis falls from North to South.<sup>7</sup> There is a much higher prevalence among the Jewish immigrants from Northern Europe to Israel than among the Israeli-born or the immigrant to Israel from North Africa.<sup>8</sup> Barlow considers that the prevalence of multiple sclerosis relates with geomagnetic latitude better than geographical latitude.<sup>9</sup>

Because of the importance of the geographical distribution of multiple sclerosis in the Southern hemisphere, the American National Multiple Sclerosis Society has helped finance a survey of multiple sclerosis in South Africa which has been in progress since 1959 and still continues. So far more than 200 White South African patients with probable multiple sclerosis have been well documented; about half of these patients are immigrants from Europe. A South African National Multiple Sclerosis Society has been formed devoted to assisting research into the cause of multiple sclerosis and, without in any way interfering with the doctor in attendance, assisting as far as possible those who are suffering from multiple sclerosis. Similar studies are taking place in Australia.

To make the survey of multiple sclerosis in South Africa a success any doctor who knows of a patient who may have probable or possible multiple sclerosis is asked to notify the physician in charge of the Multiple Sclerosis Survey, 601 Oasim Medical Centre, Port Elizabeth, or the Secretary of the South African National Multiple Sclerosis Society, 295 Villiers Road, Walmer, Cape, if this has not already been done. There are probably few patients with diagnosed multiple sclerosis who have not been reported, but these few can make an important difference to the success of this study. Patients with multiple sclerosis are almost invariably pleased to allow access to their medical history for medical research, knowing the information is kept confidential. If the patient has not been told the diagnosis, as is sometimes considered desirable, there is no need to reveal the exact purpose of the study and the patient would not be approached.

Until the cause of multiple sclerosis has been found, treatment can only be empirical. Nevertheless, much can be done to lighten the physical and psychological load on multiple sclerosis sufferers and their families by encouraging the patients to live useful lives within their reduced abilities. The administration of ACTH or prednisone as a temporary measure may help to end the acute exacerbation,<sup>10</sup> but controlled trials are needed to prove that improvement is aided by these drugs. The South African National Multiple Sclerosis Society can supply literature describing the latest rehabilitative techniques that have been developed to assist patients with multiple sclerosis in the United States. Much research is being carried out throughout the world into the cause of this most important disease, and here in South Africa we may be able to make a very significant contribution.

1. Margulis, M. S., Soloviev, V. D. and Shubludze, A. K. (1946): *J. Neurol. Neurosurg. Psychiat.*, **9**, 63.
2. McAlpine, D. (1957): *Brit. Med. J.*, **1**, 475.
3. Swank, R. L. (1950): *Amer. J. Med. Sci.*, **220**, 421.
4. Campbell, A. M. G., Daniel, P., Porter, R. J., Russel, W. R. R., Smith, H. and Innes, J. R. M. (1947): *Brain*, **73**, 52.
5. Dean, J. G. K. (1949): *Brit. Med. J.*, **1**, 842.
6. Acheson, E. D., Bachrach, C. A. and Wright, F. M. (1960): *Acta psychiat. scand.*, **147**, suppl. 35, 132.
7. Kurland, L. T. and Westlund, K. B. (1954): *Ann. N.Y. Acad. Sci.*, **58**, 682.
8. Alter, M., Halpern, L., Kurland, L. T., Bornstein, B., Leibowitz, U. and Silberstein, J. (1962): *Arch. Neurol. (Chic.)*, **7**, 253.
9. Barlow, J. S. (1960): *Acta. psychiat. scand.*, **35**, suppl. 147, 108.
10. Miller, H., Newell, D. J. and Ridley, A. (1961): *Lancet*, **1**, 127.



### ONSKULDIGE HARTGERUISE BY KINDERS

Een van die tergendste probleme waarmee die algemene praktisyn en pediater byna daaglik te kampe het, is die korrekte diagnosering van hartgeruise by kinders. Onskuldige hartgeruise kom by 20-40 persent van gesonde kinders voor.<sup>1</sup> Dit is baie belangrik om te onderskei tussen die onskuldige geruis, wat geen behandeling of beperking vir die kind inhou nie, en dié wat moontlik langtermyn mediese behandeling of selfs 'n chirurgiese ingreep regverdig. Wanneer 'n geruis as onskuldig gereken word dan het dit die volgende betekenis:

1. Daar is geen patologiese veranderinge in die hart of groot bloedvate nie.
2. Dit is onnodig om langtermyn opvolgondersoeke uit te voer.
3. Geen profilakse teen streptokokkuse hoef aangegaan te word nie.
4. Subakute bakteriese endokarditis vorm nie 'n bedreiging nie.
5. Geen onderliggende hartkwaal word vermoed wat die pasiënt se leefwyse in die hede of toekoms sal beperk nie.

Sidney Friedman<sup>1</sup> beskryf die twee hoofgroepe van onskuldige hartgeruise wat by kinders voorkom. Die mees algemene sodanige geruis is die mid-prekordiale musikale geruis wat Still 'n halfeeu gelede beskryf het. Die vibratoriese gezoem van hierdie geruis word vergelyk met die getril van 'n snaar. Dit beslaan gewoonlik die eerste derde of een helfte van sistolie. Dit word die beste oor die mid-perikordium gehoor wanneer die pasiënt agteroor lê.

Oefening verhoog die intensiteit van die geluid. Dit mag verdwyn of sagter word as hy orent is. Die intensiteit van die geruis is geensins die belangrikste uitkenningfaktor nie, maar wel die ligging regs van die apeks en net links van die onderste gedeelte van die sternum. Hierdie geruise vorm ongeveer 60 persent van die onskuldige hartgeruise by kinders.

Van die oorblywende 40 persent van nie-patologiese hartgeruise kom die pulmonêre-sistoliese geruise die meeste voor. Dit word die beste in die tweede rib-tussenspasie gehoor en is gewoonlik duideliker links van die sternum as regs. Dit bly gewoonlik ook beperk tot die eerste derde of helfte van sistolie. Dit het nie so 'n duidelike onderskeidende klank soos Still se geruis nie. Die geaardheid daarvan is eerder grof en blasend as musikaal. Die intensiteit is laag en dit word nie tot die agterste borswand gelei nie en dit is minder onderhewig aan die posisie van die pasiënt, hoewel dit ook verskerp word deur oefening. 'n Tasbare trilling is nie aanwesig nie. Hierdie basale sistoliese geruis word dikwels moeilik onderskei van dié wat dui op mindere grade van verskillende kongenitale hartletsels, soos atriële septale defek, pulmonêre stenose, aortale stenose, koarktase van die pulmonêre arterie en aortale koarktase. 'n Belangrike onderskeiding is dat patologiese hartgeruise gewoonlik na dié agterste borswand gelei word. Waar daar op kliniese vlak twyfel oor die diagnose bestaan, kan studies met instrumente deurslaggewend wees.

1. Friedman, S. (1965): *Clinical Pediatrics*, 2, 77.