Cape Town, 17 October 1964 Volume 38 No. 35 Deel 38 Kaapstad, 17 Oktober 1964

EDITORIAL : VAN DIE REDAKSIE

BETTER ROADS, FEWER ACCIDENTS, MORE FATALITIES

It is fitting that the first issue of the *British Medical Journal* in its modern guise should have concerned itself with road accidents—the new and modern disease. An important paper by Gissane and Bull[1] considers the fatalities on the M.1—the first motorway to be built in Britain. In their analyses of the causes of the accidents, the authors conclude that: 'The risk of fatal accidents to car occupants and perhaps to lorry drivers per mile travelled, is appreciably higher on the motorway than on other types of road.' Moreover, 'fatal motor accidents cause a much greater severity and multiplicity of injuries to vehicle occupants than occurs on other roads.'

These findings concern us in South Africa a great deal. Our excellent roads are one of the wonders of Africa; indeed we have many hundreds of miles of motorways. We can travel for thousands of miles across our broad country over some of the most magnificent roads in the world. And we do indeed travel! Enormous mileages are covered and regular high speeds are maintained. It has long been commonly accepted that the time taken to travel between two towns in minutes is equal to the distance between the two places in miles, so that an average of 60 m.p.h. has been accepted as a norm for many years on our country roads. The accidents that occur at these high speeds are always serious. The immense amount of kinetic energy developed by the cars, nearly all weighing more than one ton and all hurtling along at these high speeds, is such that at a touch a pedestrian is converted into a bag of broken bones, and another car is hurled off the road, crushed, and its occupants killed or maimed.

In the country roads this is serious enough, but now our town roads are also becoming motorwayed. We have long been aware of the M.1 type of injuries in accidents on the outskirts of our towns as ambitious and go-ahead Town Engineers have been developing our perimeter highways. These beautiful roads which encircle the towns have thrown the problem right into our laps. We now are seeing motorway injuries sustained within a few hundred yards of some of our largest hospitals; literally at their very doorsteps.

Can there be any reasonable solution to this problem? Must the risks we take if we drive on these highways be such that we must avoid the beautiful roads and restrict our driving to the older, narrower, but safer ones? Have we reached the point in road construction where the Law of Diminishing Returns has begun to operate? It certainly seems as if we have.

In the meantime, something must be done immediately. Repeated warnings must be issued of the danger inherent in the consumption of even a small amount of alcohol. The report of McCarrol *et al.*[2] that 43% of killed *pedestrians* had had considerable amounts of alcohol in their blood, has been referred to on previous occasions in these columns.[3] These findings have now been confirmed in a paper by Eckert[4] and most recently in another communication from Oslo where Solheim[5] reports pedestrian deaths in his city and finds that in a series of 138 so investigated, 27 (20%) were intoxicated at the moment of the accident. A similar survey has not yet been made in any large South African town, but judging from the impressions received in the casualty department of a large urban hospital, it is unlikely that the figure will be any lower.

Once again one comes up against the two greatest contributory factors to road deaths, viz. alcohol and speed. The remedy lies in our own hands.

The time has come to speak plainly. A drunken pedestrian is usually a danger to himself alone and for the moment can be left in his state of besotted peril; a drunken driver is a menace to himself, to his passengers, and to the public at large. Penalties for such as he should involve suspension of driving licences for terms of five years or longer and a stiff term of imprisonment without the option of a fine. The careless driver, the driver of the broken down or deficient vehicle receives no sympathetic consideration by the court, although people falling into these categories do not, in the aggregate, cause as many traffic accidents as one would suppose. Let us direct our energies to the most important factors concerned — speed and alcohol, which are both preventable. In Britain the slogan 'If you must drive, don't drink; if you must drink, don't drive,' is one that is being hammered home repeatedly by press, radio and newspapers; we must do the same. We cannot afford these very long casualty lists.

Breath alcohol tests must be made obligatory in all cases where an accident has occurred so that proper penalties may be imposed on drivers who show an abnormal amount of alcohol in the breath. Norway apparently considers 0·05% circulating alcohol in the blood to be pathognomonic of intoxication, but doubtless the exact figure will be decided by the proper authorities at the proper time. Breath-alyser tests should not depend on the desire of a driver to take them nor on whether he permits this to be done. They should be obligatory and essential and performed on everybody who has been driving at the time of the accident as well as on pedestrians who are injured. In this way it might be possible to apportion blame and to make a fairer apportionment of any compensation that may become available later on.

As a corollary, and this is put forward with great diffidence, we must ask ourselves (human nature being what it is) whether we should not curb our high-flown ambitions and restrict the building of speedways that invite disaster and deaths. It is simply not true to state that more people would have died if the roads had been narrower; there might indeed have been more accidents, but there would have been fewer serious ones and certainly fewer fatalities.

1. Gissane, W. and Bull, J. (1964): Brit. Med. J., **1**, 75.
2. McCarrol, J. R. *et al.* (1962): J. Amer. Med. Assoc., **180**, 127.
3. Editorial (1963): S. Afr. Med. J., **37**, 694.
4. Eckert, W. T., Kemmerer, W. T. and Chetta, N. J. (1959): J. forens Sci. Soc., **4**, 309.
5. Solheim, K. (1964): Brit. Med. J., **1**, 81.

MYASTHENIA GRAVIS

Myasthenia gravis kom relatief selde voor. Daar is volgens berekening nie meer as 10,000 gevalle in die V.S.A. bekend nie en ongeveer dieselfde getal is onbekend.[1] Ten spyte van hedendaagse terapie dra die siekte 'n mortaliteit van ongeveer 10 persent 10 jaar nadat dit 'n aanvang geneem het. Daar vind vinnige patologiese uitputting van die willekeurige spiere plaas. Geen ander miopatie word gekenmerk deur so 'n spoedige uitputting by gebruik van die spier en só 'n patologiese uitgerekte herstel gedurende 'n rusperiode nie. Die normale persoon kan byvoorbeeld sy ooglid vier tot vyf sekondes lank opgelig hou, en daarna stel 'n kortstondige oogknip die lid in staat om spontaan vyftien keer per uur te wink. Die miasteniese levatorspier het 'n rusperiode van vyf tot agt sekondes nodig om een tot twee minute lank te kan oop bly.

Vir die diagnosering van myasthenia gravis is 'n hoë maat van kliniese bedagtheid 'n vereiste. Daar kan byvoorbeeld buitensporige ptose van die een oog wees sonder dat iets in die ander oog te bespeur is, en enkele weke later kan dit net omgekeerd wees. In die meeste gevalle word die een of ander oogspier met die aanvang van die siekte aangetas. Dit is kenmerkend hoe die simptome vererger soos die dag vorder. Aantasting van die sluk- en spraakspiere kan ook uitgeken word; spraak wat na 'n paar sekonde 'n neusklank kry, is tipies van die siekte. Die disfagie gaan gewoonlik gepaard met die terugstroming van vloeistowwe deur die neus, en in alle gevalle is die kou van voedsel besonder uitputtend—somtyds tot so 'n mate dat dit uit die mond verwyder moet word, weens die onvermoë om dit te sluk. Aaanvanklik toon die rompspiere en dié van die ledemate, weens die reserwekrag waaroor hulle beskik, nie dat hulle aangetas is nie.

Dit is 'n eenvoudige kliniese toets om die pasiënt te versoek om een minuut lank na die ondersoeker se omhoog-gehoude vinger te kyk sonder om sy oë te knip. In die miasteniese pasiënt, wat nie behandeling ondergaan nie, is daar 'n neiging vir die een of die ander ooglid om na 30 sekonde te begin sak, na 'n minuut behoort duidelike ptose waarneembaar te wees.

Middels met 'n soortgelyke uitwerking as anticholinesterase word aanbeveel om die diagnose van myasthenia gravis te bevestig. Hulle verlig die simptome spesifiek, dog valse positiewe reaksies moet in gedagte gehou word. Toetse moet by herhaling uitgevoer word om 'n diagnose bo alle twyfel te bewys en om sodoende te voorkom dat pasiënte nodeloos op behandeling geplaas word. Baie pasiënte wat vatbaar is vir suggestie en wat aan 'n neurotiese uitputting ly se spierwerking sal opgeknap word na die toediening van haas enige middel per inspuiting. Aangesien atropien in ieder geval gesamentlik moet toegedien word om die newegevolge van die anticholinesterase-middels op die spysverteringskanaal te voorkom, kan dit as 'n troosmiddel gebruik word, as dit vooraf aan so 'n lig-vatbare pasiënt gegee word. Die persoon wat regtig die slagoffer van myasthenia gravis is, sal natuurlik geen baat by die toediening van atropien vind nie. Dit is nuttig om neostigmienbromied mondelings vir 'n week voor te skryf; die miasteniese pasiënt sal beterskap, wat klinies deur sy geneesheer waargeneem kan word, aanmeld.

Daar is drie beskikbare middels vir die behandeling van myasthenia gravis. Neostigmienbromied word gewoonlik eerste geprobeer. Die uitwerking daarvan wissel baie by verskillende pasiënte en selfs op verskillende tye by dieselfde pasiënt. Sommige pasiënte kan met klein dosisse (een tablet drie- of vierkeer per dag) goed oor die weg kom, dog baie groter dosisse is dikwels aangewese, en moet dan selfs gedurende die nag volgehou word. Die toleransie vir sulke groot dosisse word nie behoorlik begryp nie. Piridostigmienbromied veroorsaak minder steurings van die spysverteringskanaal en kan 'n meer uitgerekte uitwerking as neostigmien toon. Die derde middel, ambenoniumchloried, toon 'n meer volgehoue uitwerking en het minder newegevolge op die dermkanaal as neostigmien.

In die gevalle van enkele pasiënte is dit die beste om 'n kombinasie van twee van die genoemde middels te gebruik. Groot dosisse van hierdie middels is in staat om 'n gevaarlike cholinergiese blokkering by die mioneurale aansluiting te veroorsaak. Daar moet ook versigtig te werk gegaan word wanneer anticholinergiese middels gesamentlik met die anticholinesterases toegedien word, aangesien die newegevolge van laasgenoemde daardeur verberg kan word en ook tot cholinergiese blokkering kan lei. Atropien-vergiftiging is natuurlik ook nie uitgesluit nie. Buitensporige hoeveelhede van enigeen van die drie terapeutiese middels kan spierverswakking teweegbring wat die pasiënt se lewe ernstig in gevaar kan stel en 'n noodtoestand kan laat ontstaan weens die moeilikheid om te onderskei tussen oordosering en 'n akute opflikkering van die siekte (miasteniese krisis). Klein pupille, oormatige speekselafskeiding, spiertrekkings, moeilike asemhaling en hoesery dui op oordosering (cholinergiese nood). Edrofonium is die enigste veilige middel wat gebruik kan word as daar twyfel oor die oorsaak van die pasiënt se nood bestaan. As hy onmiddellike beterskap toon, was sy dosering te laag en behoort dit dadelik deur meer anticholinesterase (mondelings) aangevul te word. Indien sy toestand onmiddellik versleg, was hy oorbehandel. Atropien, kunsmatige asemhaling, trageostomie, en herhaalde uitsuiging van die afskeidings, is onder meer die resussitasie-maatreëls wat aangewend kan word.

1. Schwab, R. S. (1963): Med. Clin. N. Amer., **47**, 1511.

SIGNIFICANCE OF PALPABLE PARATHYROID TUMOURS

Recognizing the fact that parathyroid tumours can be palpated is important.[1] Patients with palpable parathyroid masses should undergo laboratory examinations for hyperparathyroidism. A palpable tumour in the neck may prove as good a sign of hyperparathyroidism as bone cysts or kidney stones. Kinder[2] draws attention to this fact in describing a case in which the satisfactory outcome is attributed to the palpability of an adenoma. Oral surgeons, orologists, gastro-enterologists, orthopaedicians and psychiatrists should remember to examine the neck for a palpable tumour when symptoms or signs suggesting hyperparathyroidism are present. Palpable parathyroid tumours are not necessarily malignant.

1. Solomon, M. (1964): J. La. Med. Soc., **116**, 216.
2. Kinder, C. H. (1957): Guy Hosp. Rep., **106**, 58.