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PRIMÊRE HIPO-ALDOSTERONISME

Na die beskrywing deur Conn[1] in 1955 van 'n kenmerkende sindroom veroorsaak deur primêre hipersekresie van aldosteroon, het daar uitgebreide belangstelling in en navorsing oor dié aspek van die sout- en waterhuishouding, gereël deur die bynierskorshormoon, gevolg. Die belangstelling was hoofsaaklik gerig op primêre en sekondêre hiperaldosteronisme. Die sindroom van primêre hiperaldosteronisme is vandag goed bekend. Ook word die belangrike rol wat die bynier (sekondêr) in verskillende patologiese toestande speel, byvoorbeeld in hartversaking, nefrose, en in lewersirrose, besef. Van primêre hipo-aldosteronisme is egter min bekend. Conn[4] beweer dat die toestand van primêre bynieronvermoë om voldoende aldosteroon uit te skei in die teenwoordigheid van vermoë om voldoende ander bynierhormone uit te skei, nog nie beskryf is nie. Hy beweer egter dat die moontlikheid wel bestaan. Gedurende 1957 beskryf Hudson *et al.*[2] 'n geval met volledige hartblok waar 'n hartstilstand deur spontane aanvalle van hiperkalemie teweeggebring is. Die bevindings, nadat uitgebreide studies in verband met nierfunksie en die ander hormoon-uitskeidingsprodukte van die bynier gedoen is, het daarop gedui dat die hiperkalemie deur 'n alleenstaande gebrek van aldosteroon-uitskeiding veroorsaak is. Dié bevindings is verder gestaaf deur die bevinding van baie lae aldosteroon-waardes in die urine voor en na soutbeperking. Die gebrek in kaliumuitskeiding was die duidelikste waar die pasiënt op 'n lae natrium-dieet geplaas is. Genoemde skrywers doen aan die hand dat die geval moontlik 'n voorbeeld van suiwer hipo-aldosteronisme is. Dit is egter nie vasgestel of die primêre fout in die bynierskors is, of in 'n 'n tot-hede-toe-onbekende regulerende meganisme buite die bynier, geleë is nie.

Uit Swede word gedurende 1958 deur Skanse en Hökfelt[3] berig gedoen van 'n geval gekenmerk deur floutes, swakheid, en hipotensie, met die verdere bevindings van geen meetbare hoeveelhede aldosteroon in die urine nie. Geen simptome en tekens van ander bynierskorshormoon-gebrek kon aangetoon word nie. Verder kon geen bewys van 'n primêre fout met die niere wat verantwoordelik gehou kon word vir die toestand, aangetoon word nie. Die skrywers beskou dit as 'n verdere geval van primêre hipo-aldosteronisme, maar was nie by magte om af te lei of die stofwisselingsfout *in* die bynier of *buite* die bynier geleë was nie.

Dit blyk duidelik uit die beskrywings dat die twee gevalle verskil wat betref hul simptomatologie, maar dat hulle nogtans een gemeenskaplike faktor, te wete, verminderde meetbare uitskeiding van aldosteroon in die urine, het. Skanse en Hökfelt[3] soek, as moontlike verklaring vir die teenstrydigheid in die simptomatologie, die teenwoordigheid van primêre hartpatologie met versaking in die geval van Hudson, maar beweer ook dat die hartpatologie die gevolg van langdurige hipo-aldosteronisme kon gewees het.

Op grond van die huidige metodes van ondersoek van nier- en bynierfunksie skyn dit asof daar duidelike bewys gelewer is van 'n kliniese toestand wat veroorsaak word deur 'n primêre gebrek aan die uitskeiding van aldosteroon. Die antitese van hiperaldosteronisme is gevind, en 'n nuwe veld van denke en ondersoek, veral in gevalle wat voordoen met onverklaarde hipotensie, hiponatremie en hiperkalemie, is nou oopgestel. Elders in hierdie uitgawe publiseer ons 'n artikel oor *'Chemical and Clinical Endocrinology of Aldosterone'* waarin 'n oorsig gegee word van die meeste probleme in hierdie verband.

1. Conn, J. W. (1955): S. Afr. T. Lab. Klin., **45**, 6.
2. Hudson, J. B., Chobanian, A. V. en Relman, A. S. (1957): New Engl. J. Med., **257**, 529.
3. Skanse, B. en Hökfelt, B. (1958): Acta Endocr. (Kbh.), **28**, 29.
4. Conn, J. W. (1956): Arch. Intern. Med., **97**, 135.

ROAD SAFETY

Grave concern for the serious and far-reaching medical, social, and broader human implications of the present unsatisfactory traffic conditions in our country has recently been expressed both in the general and in the medical press. In his recent valedictory presidential address, Mr. J. G. du Toit,[1] for instance, drew attention to the disease of road accidents; and in last week's *Journal*[2] a letter from Mr. G. T. du Toit was published in which certain practical measures that are being adopted here and elsewhere to ensure greater safety on the roads were highlighted, and in which he discussed the value of such measures as the use of safety belts in motor-cars.

It is not our purpose to discuss again the statistical details of road accidents in our country. Those who are interested in these details will find them in Mr. du Toit's address, to which we have just referred, as well as in the articles regularly published in the daily press and in the records of the National Road Safety Organization which since 1949, has rendered invaluable services towards road safety in this country. What we propose to do is to define the general principles for a broad frontal attack on this problem and to stress the urgent need for an approach of this nature at the present time.

In the first place we must point out that this problem has now assumed such proportions that the only hope we have of handling it with any degree of success, is to adopt a truly national plan of action. Our first need is for a central planning and advisory council comprising senior representatives of the Government and augmented by members of the local and central transport and traffic departments,

members of the National Road Safety Organization, members of the medical profession, and representatives of the general public.

Matters of principle with which the advisory council will have to deal will include: problems of town and street planning and the building of roads; traffic regulations such as speed limits for all kinds of vehicles, including ordinary and power-driven bicycles, motor-cycles, motor-scooters, light and heavy motor cars (especially the large modern cars which are capable of developing a degree of horse-power greatly in excess of any driver's requirements), lorries and buses; the establishment of a national traffic corps which should operate on all the main roads in the country—as an extension of the services of local traffic officers; the standardization of the procedures of registration and re-registration of all drivers; the formulation and implementation of comprehensive schemes of education in the principles of road safety for schoolchildren and adults; sustained imaginative publicity; and systematic research into all the important human and technical facets of the problem of road safety.

Secondly, it is our firm conviction that effective action on the individual level is as indispensable as the measures carried out on a national level. We should be lulled into a false and dangerous sense of security if we were to believe that a national traffic organization would exempt us, as individuals, from all responsibility in this vital matter. Indeed, in this as in all other problems of community life, we have to rely ultimately on the individual conscience and sense of responsibility in every person if we hope to achieve a stable and satisfactory way of life.

Some of the aspects of this problem which may be regarded as matters of personal responsibility, are: the continual cultivation and stimulation of a social and road conscience and of courtesy and goodwill; and a realization of the imminent dangers of the use of alcohol by drivers, of speeding and the many forms of immature behaviour of motorists, who feel the need for bolstering their egos by their flamboyant driving leading so often to fatal accidents.

In the matter of our complicated modern traffic system, as in all other matters touching on our community life, we, as responsible and civilized people, will have to realize the urgent need for cooperative action as individuals, groups and organizations, in negotiating our way through the world with a greater measure of safety and security for all.

1. du Toit, J. G. (1959): S. Afr. Med. J., 33, 296.
2. Correspondence (1959): *Ibid.*, 33, 447.