

### SUMMARY

The remedies at present available for hypertensive patients, if selected judiciously, applied conscientiously, and adjusted carefully to the particular needs of the individual, offer more today than ever before. First, however, one must make certain that actual hypertension is present and that the patient is not simply a hyper-reactor who tenses up because he is in a doctor's office.

Although about 90% of patients with high blood pressure have primary essential hypertension, one must first make an accurate diagnosis to rule out the small number of cases of remediable secondary hypertension. The latter can usually be suspected and often diagnosed by a thorough office checkup. Detection of a precise cause and its surgical removal can lead to permanent cure.

The most important therapy in all cases of essential hypertension is reassurance, more relaxation, and (if necessary) sedation. Since most cases we are called upon to treat are mild (regardless of the level of blood pressure), this therapy alone is usually adequate, particularly in women where high blood pressure is as a rule much more benign. Dietary principles advised in all cases of hypertension are reduction of weight to normal, moderate sodium restriction and low fat intake.

In general, appropriate therapy, which is most often a combination of different remedies, should be determined more by the patient's vascular state than by blood pressure readings. The cases selected for less intensive drug therapy are the large group with efficient heart and kidneys and no more than grade I or at most grade II retinal changes. Rauwolfia is the first drug used, but not before the above measures have been given a fair trial. If results are unsatisfactory, the next therapy is the gradual addition of hydralazine (Apresoline). The veratrum derivatives have been disappointing because the therapeutic dose too closely approximates the toxic dose. A combination of rauwolfia, protoveratrine, and dibenzylamine (Mio-pressin) is occasionally helpful where rauwolfia and hydralazine is inadequate. It is advisable to stop all rauwolfia and hydralazine preparations for one week every month, as well as to gradually reduce the maintenance dose and thus minimize toxic effects.

The cases selected for more intensive therapy are the comparatively small group with significant symptoms or signs of retinal, cerebral, or cardiac impairment and insufficient response to the less intensive therapy noted above. Two weeks' bed rest at home is advisable as a last resort before more drastic measures are started. If response is still inadequate, one should at this point consider drastic (500 mg. and under) sodium restriction provided the patient is co-operative and has the intelligence and will-power to follow such a diet. Failing this, it would be advisable to call in a consultant if this has not already been done, and the patient should if possible be hospitalized for two weeks. Only after that should a ganglionic blocking agent be added to therapy. This should preferably be started in hospital and is contraindicated if uræmia or advanced cerebral arteriosclerosis is present. Mecamylamine (Inversine) and chlorisondamine (Ecolid or SU 3088) so far appear to be easier to control and less dangerous than hexamethonium or pentolinium (Ansolysin). All practi-

tioners should become familiar with the side effects and dosage, since patients on these drugs require frequent office visits. Rauwolfia potentiates these agents as it does the others, and generally speaking should be the first hypotensive drug to try and the last to omit.

The only surgical procedure advocated for essential hypertension is lumbo-dorsal sympathectomy, which is very rarely necessary today and should only be considered in younger unco-operative or unintelligent patients, provided renal and cardiac functions are reasonably good and there has been inadequate response to all other therapy.

### REFERENCES

1. CROSSFIELD, H. C.: *J. M. Soc. New Jersey*, 53: 491, 1956.
2. FISHBERG, A. M.: *M. Clin. North America*, 40: 1325, 1956.
3. GILCHRIST, A. R.: *Edinburgh M. J.*, 48: 752, 1941.
4. *Idem*: *Brit. M. J.*, 2: 223, 1956.
5. HELLER, E. M.: *Canad. M. A. J.*, 61: 293, 1949.
6. HICK, F. K., KOIK, J. V. AND JOHNSTON, L. C.: *M. Clin. North America*, 41: 215, 1957.
7. JEFFERS, W. A.: *GP*, 10: 66, 1954.
8. KYSER, F. A.: *M. Clin. North America*, 40: 195, 1956.
9. MEDLOWITZ, M.: *New York J. Med.*, 57: 268, 1957.
10. MOYER, J. H. et al.: *Proc. Soc. Exper. Biol. & Med.*, 90: 402, 1955.
11. POMERANTZ, H. Z. et al.: *Canad. M. A. J.*, 77: 325, 1957.
12. PULLMAN, T. N.: *M. Clin. North America*, 41: 203, 1957.
13. SCOTT, W. F.: *South African M. J.*, 30: 261, 1956.
14. WINSOR, T.: *Am. J. M. Sc.*, 230: 133, 1955.

## Men and Books

### CARL VON NOORDEN

ONE HUNDRED YEARS AGO, on September 13, 1858, one of the great pioneers in metabolism and dietetics was born in the Coblenzer Strasse, Bonn, a city which in the intervening century has been transformed from a quiet university town into a world capital. Since Canada has played so great a part in this field of medicine, it is fitting that we should at this time pay some tribute to Carl von Noorden, who in a long lifetime of intense activity made so many contributions to the study of the metabolic diseases.

Carl Harko Hermann Johannes von Noorden came of Dutch and Rhineland stock and from a family of scholars. Two of his great grandfathers were physicians—Johannes van Noorden, a Rotterdam doctor, and Christian Nasse, who was the first clinician to be attached to the University of Bonn. His father was a noted historian, Professor Karl von Noorden, who married early and subsequently travelled much. Carl was a strong, healthy, intelligent and adaptable child, and maintained his good health and energy throughout the 86 years of his life. The lives of the father and son suggest that the concept of "job mobility" did not, as is sometimes thought, originate in the United States. The father's university posts took him to Greifswald, Marburg, and Tübingen, while his son in addition studied in Berlin and later in Tübingen, Leipzig, Freiburg and again Leipzig.

Carl was first interested in philosophy, law and mathematics but later turned to medicine, thus basing his life's work on a broad acquaintance with the humanities for which he often expressed thankfulness in later life. He graduated in medicine in 1881 in

Leipzig, and was appointed assistant in the physiological institute in Kiel next year, passing on to a post in internal medicine in the University of Giessen in 1883, and to another post in Berlin under Professor Gerhard in 1889. He was appointed professor in 1893 and next year went to Frankfurt am Main; Frankfurt and Vienna became the two cities associated with the rest of his career. In 1894 he was the director of the medical department of the municipal hospital in Frankfurt and was already occupying himself with metabolism, for in the previous year he had published a textbook of pathology of metabolism, and the year after arriving in Frankfurt he published the first edition of his celebrated monograph on diabetes and its treatment. Further studies on anæmia, treatment of renal and cardiac disorders, and obesity stem from this early period in Frankfurt.

In 1906 von Noorden was called to Vienna to replace the famous Hermann Nothnagel as professor of internal medicine. Here he stayed for seven years, devoting himself to research and being mainly responsible for the creation of the New Medical Clinic. However, von Noorden did not settle down in Vienna and seems to have encountered some opposition, for in 1913 he was glad to go back to Frankfurt where he took over the directorship of a private clinic, the Lampé-von Noorden Clinic, for diabetes and diet therapy. This clinic became world-famous as a centre for treatment and for research; patients came to von Noorden, who in addition to his directorship was also professor of internal medicine in the university, from all over the world. Nor was von Noorden parochially minded, for, inheriting the taste for travel from his father, he made numerous journeys through Europe and to the United States, North Africa and Egypt, giving lectures and exchanging ideas with professional colleagues.

In 1929, Vienna called him once more, but this time in a more specialized field. The city wanted him as director of a new hospital and research institute, the Lainz Hospital, where his talent for organization soon created an outstanding special department for metabolic and nutritional disorders, and diet therapy. The city recognized his efforts by making him a freeman of Vienna. It is worth noting that when Vienna called upon him for the second time he was already over 70 years old, but in full possession of his powers. Even after his retirement in 1935 he obtained the title of consultant and produced another couple of scientific papers. He continued to practise until his death at the age of 86, on October 26, 1944.

His private life was a happy one. He first married Agnes Binz, daughter of the Bonn pharmacologist, Professor Carl Binz, and had four children by this marriage. His first wife died in 1917 and a few years later he married Herta am der Heiden, again a fortunate choice.

What were the contributions of von Noorden to medicine? Some research workers are distinguished for one or two notable contributions in their lifetime, contributions so outstanding as to obscure the years of hard work associated with them. von Noorden on the other hand belonged to that group of research workers who apply scientific methods systematically to their chosen field over a period of many years, clear away the dead wood, and create a firm basis on which others can build. He had an orderly and precise mind



Carl von Noorden

and was good at explaining his ideas to others, which would account for the popularity of such writings as his "General Dietetics" and "Handbook of the Pathology of Metabolism". It would also account for the ease with which he taught not only physicians but also nurses and dietitians. He was an indefatigable worker, sometimes working 18 hours a day, and combined research talent with practical common sense and the ability to exercise a personal magnetism on his patients. His campaign for the underprivileged diabetic ended in triumph when in 1927 the German government agreed to his proposal for the establishment of free clinics for these sufferers. His character is revealed in two of his sayings, "My religion is reverence" (reminiscent of Albert Schweitzer) and "Life is a compromise between duty and self-restraint."

It is to be hoped that one day the world will be privileged to read his hitherto unpublished autobiography, and thus make closer acquaintance with a somewhat neglected figure in medicine.

S. S. B. GILDER

## Association Notes

### WHERE DO I SLEEP IN EDINBURGH?

July 1959, which appeared to be such a distant date, is now only next July. The significance of that remark is that members and their families who are proceeding to the Joint Annual Meeting of the B.M.A. and C.M.A. in the Scottish capital must shortly decide on the details of the trip.

Our official travel agents, University Tours Limited, 2 College Street, Toronto, are aware that over three thousand Canadian men, women and children plan