Renal Hypertension

The subject of renal hypertension has probably never been considered in more scope and depth by as distinguished a group of international authorities as during 5–7 October 1966 at a meeting in Cleveland. The meeting was sponsored jointly by the Council for High Blood Pressure Research of the American Heart Association and the Cleveland Clinic Foundation on the occasion of the 20th anniversary of the Council for High Blood Pressure Research. Both organizations used the occasion also to honor Irvine H. Page who was responsible for the founding of the Council. His retirement as director of research at the Cleveland Clinic was announced recently but he will continue in an active role at the Clinic as consultant. In addition to a banquet in his honor, another was held for the first presentation of the Stouffer Award for outstanding achievement in research in the fields of arteriosclerosis and hypertension. The award of $50,000 was made jointly to Harry Goldblatt and E. Klenk.

The meeting was limited to approximately 275 invited scientists, including 80 from more than 20 foreign countries. Thirty papers were presented; there were two panel discussions during the 3-day meeting.

The meeting commenced with a historical perspective of the problem of renal hypertension by Sir George Pickering. The program was organized so as to provide relatively thorough coverage of the entire problem of renal hypertension.

Among the numerous notable presentations, those of special general interest included a report from L. T. Skeggs that renin extracted from the kidneys of hogs exists in at least four different forms, rather than in only one as had previously been thought. It is not yet known whether all of them may appear at times in circulating blood or if they are the result of the extraction procedure. If the forms occur naturally in plasma, it may be significant to those who perform renin assays for diagnostic and investigative purposes. It was generally agreed that none of the present methods for measuring levels of plasma renin is vastly superior to the others but they have yielded useful information. Further improvement in methodology of renin assay is desirable, since all present methods have their shortcomings. It was the consensus of a panel on the role of the renal pressor system in clinical hypertension that a renin assay should be done on all patients with hypertension.

For the first time, human angiotensin has been isolated in pure form. K. Arakawa reported that it is identical in composition and sequence of amino acids to angiotensin in horses and hogs. This provides an answer to the question of whether animal angiotensins are valid standards of measurement for human angiotensin, and also provides assurance that much investigative work on animal angiotensins also applies to human angiotensin.

Another significant report concerned a naturally occuring inhibitor to the action of renin. R. Smeby isolated the compound from kidney tissue and has shown that it is a phospholipid. In in vitro studies this phospholipid prevented completely the formation of angiotensin by renin. A single, daily injection of 2 to 6 mg/kg administered to rats with renal hypertension effectively lowered the pressure of all animals tested, thus suggesting a causative role for renin in renal hypertension. The inhibitor had no significant effect on arterial pressure of normotensive control animals, and there were no apparent toxic effects. It differs from the prostaglandins, which were discussed in detail by S. Bergstrom; these compounds have a brief, direct depressor action. E. E. Muirhead described another substance obtained from the kidney medulla; this antihypertensive material is a lipid but one that has no anti-renin activity.

Indirect evidence indicates that the phospholipid is present in circulating blood; its presence or absence there may have equal significance with levels of circulating renin and will need to be taken into account in diagnostic and investigative studies on renal hypertension.

A special and unique aspect of the meeting was the preparation of an authoritative text on renal hypertension. This was a project separate from presentations at the meeting. Approximately 60 participants started nearly 9 months prior to the meeting to prepare the text of the book. Each made a contribution to one or more chapters of the book in the area in which he is an expert. The chapters were then edited and made cohesive by the staff members of the Research Division of the Cleveland Clinic, and then recirculated among the contributors for further comment and editing. The aim was to achieve a comprehensive, objective, and reliable text, rather than a collection of specialized and often biased essays. On the day before the meeting the contributors to the book met at the Cleveland Clinic to put finishing touches on the book and to iron out areas of disaccord. It is no small achievement that 60 experts in the field of renal hypertension, most highly opinionated, were able to reach an accord! The project, in essence, was an attempt to update the excellent text *Renal Hyptertension* written 20 years ago by Braun-Menéndez and colleagues. An effort of this sort, in the field of renal hypertension at least, has not been attempted before. The book, written for experienced investigators, as well as for student and teacher, should serve a most useful function for a long while if the aim of its contributors and editors is met. Page is editor-in-chief and publication is scheduled for mid-1967.

The detailed proceedings of the symposium will be published in a supplemental volume of *Circulation Research* under the editorship of Edwin W. Wood, III. Both the meeting and preparation of the text on renal hypertension were supported in part by grant HE-10509 from the National Heart Institute.

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Forthcoming Events

April

1–5. American Soc. of **Planning Officials**, natl. planning conf., Houston, Tex. (The Society, 1313 E. 60 St., Chicago, Ill. 60637)

1–7. American **Concrete Inst.**, intern. symp., concrete bridge design, Toronto, Ont., Canada. (Shu-t'ien Li, South Dakota School of Mines and Technology, Rapid City 57701)

2–6. American Assoc. of **Cereal Chemists**, annual mtg., Los Angeles, Calif. (AACC, 1955 University Ave., St. Paul, Minn. 55104)

2–6. **Lister Centenary Conf.**, London, England. (Miss M. E. Douglas, Conf. Secretary, Royal College of Surgeons of England, Lincoln's Inn Fields, London, W.C.2)

2–8. European Soc. of **Radiology**, 1st congr., Barcelona, Spain. (Prof. Fros, Hospital Civil, Strasbourg, France)

2–8. International Symp. on **Tropical Root Crops**, St. Augustine, Trinidad. (Symp. Secretary, Dept. of Agriculture and