

Nephrology Comes of Age

THIS year, 1966, marks the founding of the American Society of Nephrology. It is, therefore, the newest of the medical specialties and marks approximately fifteen years of increasing attention and developments in the broad field of nephrology. A working definition of nephrology is—the systematic study of the function and structure of the kidney in health and disease. The definition is necessarily broad since both the basic and clinical sciences are well represented by physiologists, chemists, electron microscopists, immunologists, pathologists, internists and surgeons, all of whom share an interest in the nephron and its disorders. There have been three international congresses of nephrology whose registration figures tell an interesting story:

1960	France	400
1962	Czechoslovakia	900
1966	U.S.A.	2100

A journal, appropriately called NEPHRON, is regularly published and devoted to basic and clinical research.

The strongest impetus to these developments has come about as the result of three distinct circumstances. The first is the availability of methods for studying nephron function. In species as high on the scale as the rat and the dog, it is now possible to sample and analyze glomerular filtrate from individual nephrons. Many of the older concepts of kidney physiology have had to be abandoned or radically revised. Secondly, electron microscopy has provided a powerful tool for studying the structural basis of nephron function. Classical renal pathology, particularly glomerular disease, is being entirely rewritten in the present era. The third major development has

been clinical. I refer here to the new methods of treating end-stage renal failure, i.e., dialysis and transplant.

For the practicing physician, there is no need to emphasize the frequency and complexity of the renal problems that confront him. Nephrology centers, usually within the context of a University Medical Center, are increasingly available to provide specialized help. The U.S. Public Health Service currently supports 14 chronic hemodialysis centers in the United States, and several universities have renal transplant programs. The University of Louisville carries on both types of activities, as well as a diagnostic and therapeutic service. The clinical nephrologist of today is usually an internist who has been trained in renal disease in one of the 2-5 year training programs supported by the National Institutes of Health. Residents who want to enter the field may find a number of training opportunities, including the program at Louisville.

The best way to make use of a nephrologist, as with any specialist, is to refer patients for study early in their course. Renal failure comes in all combinations of reversible and irreversible elements which can be quantitatively analyzed and improved to various degrees. The tasks remaining for the future are many, including better methods of detection and prevention of renal disease, improved techniques of transplant, and many others. For the present, the nephrologist is ready and willing to serve his colleagues with the best available methods for diagnosis and therapy.

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