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## References

- Ovid and Apollodorus, quoted by Edith Hamilton. Mythology. Boston. Little, Brown and Co., 1940.
- Princeteau, M.: Greffe rénale. J. Méd. Bordeaux, 26:549, 1905.
- Jaboulay, M.: Greffe de reins au pli du coude par soudures artérielles et veineuses. Lyon Med., 107:575, 1906.
- Unger, E.: Nierentransplantationen. Klin. Wschr., 47:573, 1910.
- Neuhof, H.: Transplantation of Tissues. New York. Appleton and Co., 1923, p. 260.
- Murray, J. E., et al.: Kidney Transplantation in Modified Recipients. Ann. Surg., 156:337, 1962.

- Murray, J. E., et al.: Reversibility of Kidney Homograft Rejection by Retransplantation and Drug Therapy. Ann. N. Y. Acad. Sci., 99:743, 1962.
- Murray, J. E., et al.: Prolonged Survival of Human-Kidney Homografts by Immunosuppressive Drug Therapy. New Engl. J. Med., 268:1315, 1963.
- Shackman, R., W. J. Dempster and O. M. Wrong: Kidney Homotransplantation in Human. Brit. J. Urol., 35:222, 1963.
- Hume, D. M., et al.: Renal Homotransplantation in Man in Modified Recipients. Ann. Surg., 158:608, 1963.
- Starzl, T. E., T. L. Marchioro and W. R. Waddell: Reversal of Rejection in Human Renal Homografts with Subsequent Development of Homograft Tolerance. Surg., Gynec. Obstet., 117:385, 1963.
- 12. Hitchcock, C. R.: Personal communication.
- Reemtsma, K., et al.: Heterotransplantation of the Kidney: Two Clinical Experiences. Science, 143:700, 1964. (Case 1)
- Gagnon, J. A. and R. W. Clarke: Renal Functions in the Chimpanzee. Am. J. Physiol., 190:117, 1957.
- Wiener, A. S. and J. Moor-Jankowski: Blood Groups in Anthropoid Apes and Baboons. Science, 142:67, 1963.
- Reemtsma, K., B. H. McCracken, J. U. Schlegel, M. A. Pearl, C. W. DeWitt and O. Creech, Jr.: Reversal of Early Graft Rejection After Renal Heterotransplantation in Man. J.A.M.A., 187:691, 1964.

## Discussion

Dr. Joseph Murray (Boston): Dr. Reemtsma's persistence in the study of heterotransplantation, although as yet not of clinical usefulness, has opened up this phase of transplantation biology for further experimental investigation. None of us one year ago would have guessed that any primate graft would have survived for 12 weeks. Certainly no one would have expected that any would have had a reversal of a rejection process, as has been so beautifully demonstrated by Dr. Reemtsma

Primate grafts may in the future serve as a potential source of donor organs, and this possibility alone warrants further laboratory study in their use

It is a tribute to Dr. Reemtsma's group that

their initial failure did not dissuade them, as it has so many others in the past 50 years. Their persistence reflects an open-minded attitude so necessary for the accumulation of valid scientific data.

Dr. Reemtsma mentioned that we have established a registry of human kidney homotransplants under the aegis of the National Research Council and with the help of the Public Health Service. This registry is open to everybody performing or contemplating human kidney homotransplantation. We will send data sheets to anyone requesting them. All data will be tabulated, processed, and programmed on a semi-annual basis, and published in the journal *Transplantation* and all information will be available on request to all at any time.