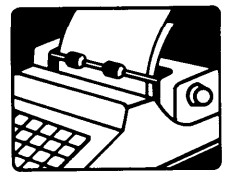
# Editorials



# Human Pancreatic Transplantation

It is most appropriate that the inaugural issue of this journal include a manuscript on pancreatic transplantation that may well indicate the mode of future therapy in many patients with juvenile-onset diabetes. Gliedman et al.[1] have over the past several years played an active role as advocates of clinical transplantation of vascularized pancreatic segments in a selected group of patients. Other surgeons such as Lillehei et al.[2] in Minnesota and Groth et al.[3] in Sweden have had a poor experience with their attempts at this procedure. Dubernard et al.[4] in Lyon have more recently described transplantation of pancreatic segments in which the duct has been injected with neoprene. Moreover, there is evidence in experimental animals that with the use of agents that partially inhibit exocrine secretion in pancreatic segments implanted intraperitoneally it is possible that duct ligation or anastomotic drainage is not necessary at all.[5] In these experiments the mesothelial surface of the peritoneum was proved again to have a copious absorptive capacity, enabling removal of proenzyme-containing secretions, if enzyme-activating circumstances (e.g., infection) could be avoided. There has been a benign course eventually associated with cessation of exocrine function, which occurs within a matter of weeks.

It therefore appears justified to us that two major categories of patients should be treated by either the surgical method of vascularized grafts or that of allotransplantation of pancreatic islets. These are essentially the two groups that are described by Gliedman et al. in a small study in this issue. Notwithstanding, there are major disadvantages in each group. Group I consists of individuals with end-stage renal disease in which progression of diabetes has led to irreversible and, in many instances, moribund cardiovascular status. The measurement of beneficial changes in the progression of the disease that could be considered to be due to pancreatic transplantation is obviously very difficult in these quite ill patients, although it is not impossible if sufficient numbers of patients can be studied.

Group 2 consists of patients in whom the state of juvenile-onset diabetes has led to earlier marginal changes in organs such as the kidneys, eyes, and peripheral vasculature as objectively documented by biopsy, retinal photography, arteriography, etc. Here the changes in progression of the complications of diabetes can be measured much more easily. The major obstacle in this group continues to be histocompatibility. This is so because the genetic disparity in nonuremic patients is perhaps even more difficult to surmount with current immunosuppressive modalities. However, the key word is "perhaps." Although both whole or segmental pancreas, as well as islets, are definitely immunizing foci and sensitive targets of rejection mechanisms, protocols involving organ enhancement/tolerance and suppressor cell activity in experimental transplantation now show more promise for clinical applicability.[5] We therefore are very supportive of such efforts and believe that critically defined clinical protocols should even now have their inception in larger transplant centers.

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REFERENCES

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[5] Kyriakides, G., Miller, J., and Sutherland, D. E. (unpublished).

# Urine Testing, 1978

It is somewhat surprising to find in this inaugural issue of DIABETES CARE four articles on the seemingly mundane topic of urine testing. Yet, if properly used, urine testing is important in the monitoring of