

ACS EXCERPTS

The syndrome is fever, chest pain and fluid collections in the chest cavity or the cavity surrounding the heart. It may occur from two weeks to 12 months after operation and usually lasts 7 to 14 days. Although the natural course of the disease is self-limited and benign, it is responsible for lengthened hospitalization and an increase in the financial costs.

The remaining patients in the study fell into two categories, neither of which has this complicating disease, said Dr. McCabe. One group (10 patients) showed no heart-binding antibody and the remaining 27 patients revealed a moderate brief rise in the antibody.

"The presence of such an antibody in this setting would suggest an autoimmune relationship in this syndrome, but this alone is not proof of cause," said Dr. McCabe in an interview.

"To determine further the role played by this heart-binding antibody, we exposed living human heart cells grown in tissue culture to the serum taken from those patients who developed the syndrome. There was no apparent difference between the cells grown in the presence of this antibody and those cells grown without the antibody. This suggests that the antibody alone is not responsible for PPS. However, it may act with other blood elements to result in the clinical picture."

Work is now in progress to determine the effect of this antibody in combination with lymphocytes taken from affected patients to establish if they may work in unison to cause cell damage, said Dr. McCabe.

Associated in the study were John B. Zabriskie, M.D., Mary Allen Engle, M.D., and Paul A. Ebert, M.D., F.A.C.S. of the New York Hospital-Cornell Medical Center and the Rockefeller University.

A dietary approach to the treatment of chronic kidney failure has increased the survival rate in patients at Massachusetts General Hospital over the last two years.

Patients given intravenous solutions of essential amino acids showed double the survival rate of a control group given only glucose, Ronald M. Abel, M.D., told the Clinical Congress of the American College of Surgeons.

"Although modern medical and surgical science has enabled patients with a variety of catastrophic illnesses to survive initial treatment, the persistent and devastating complication of failure of kidney function often precludes recovery," Dr. Abel said in an interview. "Emergency open heart surgery, ruptured abdominal aortic aneurysms, surgery for the treatment of multi-system trauma, major body total burns, are but a few of those illnesses or events which are now treatable but are often associated with a high incidence of kidney failure. Patient survival in association with this complication has been reported to be as low as 10 per cent but only as high as 40 percent in the more current studies."

The dietary approach to acute renal failure was first suggested in Europe. In 1969, the idea was applied in Philadelphia where patients were given synthetic essential amino acids by vein.

The work has been extended to more than 50 patients at Massachusetts General Hospital. Seventy-five per cent treated with the solution of essential amino acids have survived whereas less than 40 per cent receiving glucose alone survived.

"It is apparent from the degree of improvement in renal function as manifested by decreases in levels of serum creatinine and increases in urine volume that the rate of recovery was also hastened in the treated group," said Dr. Abel. "That is, it is suggested by our observations that this mode of therapy alters the 'natural history' of renal damage and will speed recovery in certain patients."

Associated in the study were Clyde H. Beck, Jr., M.D., William M. Abbott, M.D., John A. Ryan, M.D., G. Octo Barnett, M.D., and Josef E. Fischer, M.D.

BOOK REVIEW

Bioceramics—Engineering in Medicine

by C. W. Hall and 51 contributors

484 pages; price \$18.00 John Wiley & Sons, Inc.

Biomaterials for Skeletal and Cardiovascular Applications

by C. Homsy & C. D. Armeniades (and 34 contributors)

169 pages; price \$10.00 John Wiley & Sons, Inc.

605 Third Avenue, New York, New York 10016

Though these two volumes will be found invaluable by the biomedical engineer, there are several chapters of basic interest for the practitioner of the Technology. The former volume contains articles on titanium implants as well as on the surface interaction of blood while the latter has several articles on materials used in cardiovascular prosthetics. Losing the average technologist in a maze of higher mathematics and drowning him in a sea of physics, one should not expect to understand more than a small percentage of these vast stores of information. But, while the technician and technologist may not be encouraged to buy these volumes, they should be borrowed and browsed for the many useful bits of fact even the most unsophisticated practitioner may glean from these pages.