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NEWS

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*****Dr. Sharon Cassidy receives
Lyndon Baines Johnson Award
for heart research.

DALLAS--The 1979 Lyndon Baines Johnson Research Award was presented to Dr. Sharon Cassidy, assistant professor of internal medicine and physiology, at The University of Texas Health Science Center at Dallas, at the annual meeting of the American Heart Association, Texas Affiliate in Houston June 9.

Cassidy received the award for her proposal to continue her research on the effects of lung inflation on the heart.

For the last 10 years the most effective treatment of "shock lung" (respiratory failure) has been mechanical ventilation with "positive and expiratory pressure." This extra inflation of the lungs effectively increases the supply of oxygen in the blood but reduces the amount of blood that reaches the tissues.

In "shock lung," the most serious post-operative problem a patient can have, the lungs are filled with fluid and collapse resulting in hypoxia (too little oxygen in the blood). The condition also occurs after near-drowning or with viral pneumonia or acute pancreatitis.

Over-inflating the lung to increase the patient's oxygen supply causes the cardiac output (volume of blood pumped by the heart) and blood pressure to drop. Before studies by Cassidy and others, it was thought that the pressure of the over-inflated lungs mechanically cut off the blood vessels causing the decrease in blood flow. Cassidy has shown that while this does occur, the major cause of the decrease is the increased lung volume. The increased volume initiates a reflex that depresses heart function.

In her next study, which has been funded by the heart association, she will study the mechanism of the reflex and the use of drugs to intervene in the reflex and maintain a normal blood flow during the time the lung is over-inflated. She suspects that the over-distended lung causes a release in the hormone such as prostaglandin E, which stimulates a nerve causing the heart to pump less effectively. She thinks "aspirin-like" drugs may inhibit the release of prostaglandin so the heart may continue to furnish a normal blood flow to the body.

Cassidy joined the faculty in 1976. She received her M.D. degree from Southwestern in 1971 and did residencies here and at Dallas Veterans Administration Hospital.

The Lyndon Baines Johnson Research Award is presented annually to a young investigator working on cardiovascular problems. This year the Texas affiliate of the heart association received 138 grant applications and made 47 grants. The award was presented to Cassidy because her research project, funded for \$13,673, received the highest priority rating based on scientific merit.

Last year Dr. Woodring Wright, assistant professor of cell biology and internal medicine also at UTHSCD received the award for his work on aging.

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