

Pork heart valves

Pork industry unites for research drive

By SALLY BAIR
Staff Writer

You probably know someone whose life has been saved by a pig. If this sounds farfetched, you haven't heard of porcine heart valves and the lifesaving role they are playing in heart surgery.

The Pennsylvania Porkettes and the Pork Producers Council have a joint project underway to raise funds to keep those pigs saving lives. Their fund-raising project, which will climax this week, will make money available for further research on using pig valves to replace human heart valves.

According to Mrs. John Henkel, Strasburg R1, the Porkettes initiated the drive "because we felt the need to do something to reach out and help other people." She explained that they have done a lot of promoting their product, but wanted to turn this promotion into an area of helping others. Carol is the chairman of the state Porcine Heart Valve Drive.

She said they got the idea for a "helping" promotion from South Dakota, where they raised money to help burn victims. Pig skin is very useful in promoting healing and infection when used as an overlay on burn victims.

The Pennsylvania group investigated the need in Pennsylvania, and through their investigations turned instead to the pig valve. They discovered that patients themselves do not need funds for the valves, since the cost is usually covered under medical programs; however, they found a big need for additional research funds.

Pig valves have been used in heart patients for as long as ten years, but so far studies have not demonstrated the longevity of the valves. Carol pointed out that in children the valves need to be replaced as they grow. In adults the useful life of the valve has not been determined.

In studying the need, Carol and other Porkettes traveled to Hershey Medical

Center and to St. Christophers Children's Hospital in Philadelphia, meeting with leading heart surgeons at both institutions.

Carol came away very much moved and educated in more detail about the need and the use of pig valves in heart surgery. She said work being done is very impressive, and expressed special interest in a completely artificial heart which has been used successfully on the outside of a calf at Hershey Medical Center. She noted that a mechanical heart will definitely become available to heart patients in the future, but many things still need to be worked out before they can be used in humans.

In explaining the decision to proceed with the fund drive, Carol said, "The research on the pig valve is funded, except in the area of pig valves themselves. The cost of a pig valve is so high (from \$700 to



Carol Henkel checks over some of the factual information she has gathered for the fund drive by the Porkettes and the Pork Producers Council, to raise money for porcine heart valve research.



W. S. Pierce

35,000 perfect valves needed annually in this country and 70,000 needed worldwide. With a ninety per cent rate of rejection of hearts recovered from pigs, it is easy to see the number of valves which must be recovered from pigs to meet the demand.

The group officially started the project in October, 1978, and has worked primarily through businesses and service organizations with a mail order request.

The official end of this first phase of the funding program will come to an end at the Keystone Pork Congress to be held at the Hershey Convention Center on Friday, February 16. Carol explained that they want to conclude this phase at the Congress to coincide with Heart Month. However, she noted that the actual disbursement of funds to two research centers will not be made until a March meeting of the Porkettes so contributions can be accepted after Friday.

Homestead Notes



R. K. Balsara

\$1400) that in research they use valves which are rejected for use in heart patients. We want to provide them with money to get perfect valves for research." She stated that if there is a failure in a research project, it cannot be determined if the failure is due to a defective valve or to some other reason.

The reason for the high cost of the valves is that 90 per cent of the valves retrieved from pigs are not suitable for use because of some imperfection. Those that are deemed acceptable undergo a transformation before being used in humans. Carol said the smallest valves come from a sixty-pound pig, and the cost of these valves for children is the highest because of their small size.

"The valves must be removed under sterile conditions and everything must be perfect," she said. "It is then completely changed from what it was. The work is hand done and may take four to five days to complete. The process is very precise and stringently controlled." Under completely sterile conditions the valves are fitted with a metal ring which keeps them from collapsing when they are used in heart surgery. They require special storage to ensure protection from light and heat, and they cannot be frozen. "If there is even a question that a valve was frozen it is not suitable."

Pig valves have become such an important tool in heart surgery she explained, because "there is no rejection problem." There is also no need to use anticoagulants when pig valves are used as replacements, because there are no clotting problems. The only other acceptable valves are plastic, and pig valves seem to be more readily accepted by the human body.

Carol said that the Porkettes learned that in the United States there are 50,000 replacement operations done per year, and two-thirds of these are done by using porcine valves. That means there are

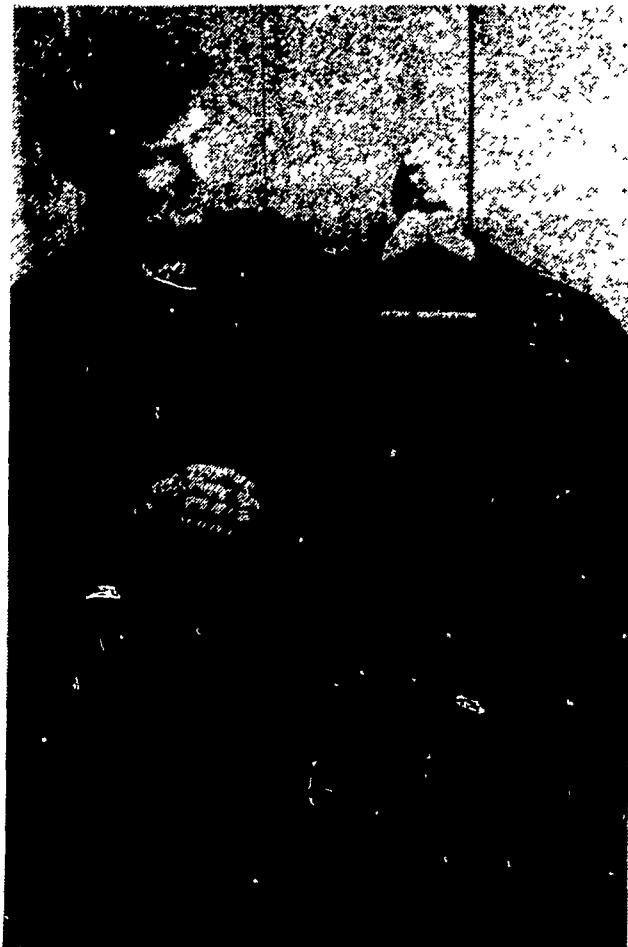
Another part of the promotion is the selling of donation tickets which entitle the purchaser to participate in a drawing for one men's pig suede jacket and one women's pig suede full length coat. The drawing will be done at the banquet on Friday evening. "You don't have to be there to win," Carol said, "and the coat and jacket are available in whatever size or color the winners select." She said the \$1.00 tickets are being sold throughout the state and will continue to be sold during the Pork Congress. The apparel was donated, so all the money from the donation tickets will go directly to the porcine heart valve fund.

A feature of the Pork Congress will be a seminar conducted on the heart valve research by Dr. R. Balsara of St. Christophers Children's Hospital in Philadelphia and Dr. W. S. Pierce of the Hershey Medical Center. The seminar will feature a filmstrip and slide presentation on the research being done. A heart-lung machine will be set up to be viewed and explained for participants. Both doctors will answer questions about their research and the use of porcine heart valves, how they are harvested and processed. "We are so happy to get these two men together for this seminar," Carol declared. She noted that the seminar is open to anyone and is scheduled so that no other part of the Pork Congress will conflict.

Carol said she agreed to be chairman of this state project because, "I thought it was really worthwhile. But it turned into more work than I expected." She stressed that the project is a joint one by the Porkettes and the Pork Producers.

"Everyone is so enthusiastic about this project," she said. And it will not stop with the Pork Congress. It will be continued throughout the coming year, but with emphasis on individual local events to raise money. "This is our main drive and we hope to get as much in as possible. We really feel it is worthwhile because so many people are being helped by it."

Individuals or businesses who wish to contribute to research on the use of the pig valve in heart surgery can send their tax deductible contributions to Carol Henkel, RD 1, Box 221, Strasburg, Pa. 17579. If there are questions she will welcome your call. Her phone is 717-786-2562. Checks should be made out to the Porcine Heart Valve Research Fund.



Purchasers of a \$1 donation ticket will be eligible to win either a pig suede jacket or a full length women's coat. Carol displays a pig suede jacket that is owned by her husband, John.