

New Surgical Option Opens Blockages

BY LARRY WIDEN

Critical coronary stenosis is a condition where cardiac function is impaired by plaque, or fatty deposits, building up inside an artery. Left untreated, stenosis will eventually lead to a heart attack or stroke. Currently, the two common treatments for relieving arterial blockages are coronary angioplasty or coronary bypass surgery.

Angioplasty is a non-surgical option for blocked or narrowed passages in one or two of the coronary arteries. The procedure, performed by a cardiologist, involves a thin tube called a catheter that is inserted through the groin and threaded into the blocked artery. A balloon attached to the catheter is inflated at the problem area to open the artery and allow the blood to flow through it more freely. If the artery is not staying open on its own, the cardiologist may choose to implant a metal mesh-like structure called a stent into the artery. The balloon allows the stent to be expanded and permanently implanted in the artery, thus keeping it open.

If the blockage is in three or more arteries, chances are the cardiologist will not place multiple stents, simply because the

risk of one or more of them failing increases. Instead the patient would be a candidate for coronary bypass surgery. In the past, outcomes for women who underwent a heart surgery of this type were poorer than those of a man. Husam Balkhy, M.D., cardiothoracic surgeon and department chairman at the Milwaukee Heart Hospital, says women's heart problems usually occur in their 70s, while men's tend to happen in their 60s. "Recovery is statistically harder for the older person," he says. "Also, women's heart disease is often in a more advanced state when it is finally detected."

In recent years a revolutionary surgical procedure, the off-pump coronary artery bypass (OP-CAB), has improved recovery outcomes for both men and women. The procedure, often called "beating-heart surgery," is done without the aid of a heart-lung machine. Using a heart stabilizer, surgeons can restrict the movement of the heart, which provides enough space to perform the delicate connection of the harvested veins and arteries from the aorta past the clogged coronary arteries. The

result is restoration of adequate blood supply to the heart muscle.

Dr. Balkhy performed the first OP-CAB procedure at St. Joseph's Hospital in 1998. The results were so encouraging that less than a year later he was doing 80 percent of his heart surgeries in this manner. His detailed records of each surgery eventually formed the basis of a study that showed how patients were better off as a result of the procedure.

In 2003, Balkhy and his partners at Cardiothoracic Surgery Group were invited to present their findings at the International Society for Minimally Invasive Cardiac Surgery conference in San Francisco. In the study, Balkhy compared 131 women who had off-pump surgery to 131 women who underwent the traditional cardiac bypass. "In every off-pump case, we eliminated the prolonged hospital stay and extended recovery time," Balkhy says. Obviously, I don't want anyone to have to undergo this procedure, but if someone is experiencing heart problems, this is a wonderful option to offer them. ♥



Husam Balkhy, M.D. pioneered the new procedure in Wisconsin.

