

Cardiology at Concorde

Specializing in Non-Invasive Cardiology



MINIMALLY INVASIVE AORTIC VALVE SURGERY AUBREY GALLOWAY MD, FACS

Patients who are now being referred for aortic or mitral valve surgery are reaping the benefits of many technical innovations developed by cardiac surgeons in the last 10 years. One of these technologies, commonly known as “minimally invasive” surgery has been pioneered and perfected by Dr. Aubrey Galloway and his colleagues at NYU Medical Center. Dr. Galloway is the Seymour Cohn Professor & Chairman of the Department of Cardiothoracic Surgery at the NYU School of Medicine.

There are several techniques that fall under the heading of minimally invasive cardiac surgery. One of the most basic involves the type of incision employed. The, standard incision runs the length of the front of the chest, is about 6 inches long and is made by cutting through muscle and the breastbone—“the midsternotomy incision”. At NYU this is often replaced by a right “mini-thoracotomy” incisions that is about 3 inches long and provides access to the heart between the ribs. The advantages of the smaller incisions include less blood loss during surgery, lower risk of infection, less effect on breathing efficiency, less pain postoperatively and shorter hospital stays. Patients often return to unrestricted activity more rapidly.

One important benefit of this approach has been the improved survival of higher risk surgical patients, especially those in the age group of 70-90. All of the benefits of the smaller incisions are magnified in this age group because these patients are prone to longer stays and slower convalescence times because of their poorer state of health including advanced age and co-existent conditions such as weakened heart muscle, chronic lung disease or kidney failure.

For this Spotlight Article, Dr. Galloway summarizes a pre –publication report of the surgical outcomes for high risk patients requiring aortic valve replacements which was presented at the January, 2007 meeting of the Society of Thoracic Surgery in San Diego. Speaking for a dozen contributing physicians, Dr. Galloway points out that the current perception

of the risk of cardiac surgery in these patients has been overestimated and how the work at NYU should alter this perception.

Dr. Galloway:

“We presented our data on 1507 consecutive patients for whom we performed isolated aortic valve replacements at NYU between January 1996 and March 2006. Approximately half of the group (731 patients) were considered high risk by current scoring systems widely accepted by the international community of cardiac surgeons. There were 313 patients in their 70’s and 322 patients in their 80’s or 90’s.

In about two thirds of these patients, we used a small incision to access the heart. In the high-risk group, the frequency of hospital survival, about 92%, were comparable to rates currently reported by other centers. Five-year survival occurred in 72% of the survivors, better than would be predicted by the international scoring system.

These results have important implications:

First, high-risk patients who are referred for isolated aortic valve replacement should not forgo the benefits of surgery because of a scoring system that overestimates their risk.

Second, the reports of procedures done to replace the aortic valve by using a catheter in the groin to implant a valve-within –valve have suggested better results from this nonsurgical technique for the highest risk patients. This is misleading because we have shown that these patients often do well after surgery. The catheter technique is evolving rapidly and we look forward to further comparisons with our data when more results are available.

Our work suggests that the techniques we used in these patients improved their outcomes in a manner not predicted by current international scoring methods. Newer technologies should meet or exceed the results of our approach before being accepted as adequate substitutes for our procedure.”

Cardiology at Concorde would like to thank Dr. Galloway providing us with pre-publication material to share with our readers. We look forward to his continued contributions.

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