

# Scott & White Memorial Hospital uses device to revolutionize treatment of traumatic aortic injury

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Scott & White Memorial Hospital vascular surgeons Clifford Buckley, M.D., and Ruth Bush, M.D., performed one of the nation's first implants of a Next Generation Conformable GORE TAG Thoracic Endoprosthesis device for the treatment of a traumatic aortic transection as part of a national clinical trial. The goal of the trial is to gain insight into using thoracic endografts for patients with traumatic aortic transection (tear) as a less invasive alternative to major surgery.

"This is the first time this procedure has been performed on a human as part of a landmark study and is the first device being studied for traumatic aortic transection specifically," said Dr. Buckley, a professor of surgery at Texas A&M Health Science Center College of Medicine. "Because Scott & White Memorial Hospital is the only designated Level I trauma center between Dallas and Austin, TX, we're able to provide such cutting-edge care for patients with these traumatic injuries."

Traumatic thoracic aortic transections often result in death and injury to the thoracic [aorta](#) from motor vehicle accidents which account for up to 15 percent of all deaths. Patients who survive usually have small tears or partial thickness tears of the aortic wall and the aorta is at greatest risk in front or side impacts. Most blunt aortic injuries occur in the proximal thoracic aorta, although any portion of the aorta is at risk. The proximal descending aorta is at greatest risk from the shearing forces of sudden deceleration.

"Trauma patients with thoracic aortic transections often have multiple, complex injuries that increase the risk of standard surgical repair of the aorta," said Dr. Bush who is also assistant dean of graduate medical education at Texas A&M Health Science Center College of Medicine. "So, a minimally-invasive treatment option like this could provide an opportunity to care for patients who might otherwise be too sick or have injuries too serious to undergo a major operation to gain access to the aorta that often requires stopping the heart."

Endovascular procedures are less invasive than major "open" surgery and involve sealing off an aneurysm by placing the endovascular graft inside the aorta, re-lining and making a new path for blood flow. The GORE TAG thoracic endograft remains inside the aorta permanently through the use of a metal stent creating a tight fit and seal against the wall of the aorta. Endovascular repair may be performed under general, regional or local anesthesia and the procedure typically takes one to three hours. Patients commonly return to normal activity within two to six weeks after the procedure.

Dr. Clifford Buckley and colleagues were the first in Central Texas to use the Conformable GORE TAG thoracic endograft that helps reinforce the weakened aortic wall. A Level 1 trauma center is a comprehensive trauma facility, and provides the highest level of specialty care available, which meets stringent national standards of performance. Access to a comprehensive trauma center and its capability to provide definitive care for every aspect of injury is strongly associated with improving a critically-injured patient's chance of survival.

Provided by Scott & White Healthcare

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