Framingham Physician Brings New Spine Surgery Technology to Community

A local spine surgeon has helped develop a new technology for spine surgery access to the benefit of his community and patients nationwide.

Dr. James B. Macon, a Framingham neurosurgeon, performs spine surgeries done with a very small incision, known as minimally invasive surgery (MIS), using state-of-the-art technology called the Swivel Port System. Dr. Macon uses this device to treat conditions such as herniated discs, pinched nerves and stenosis due to spinal arthritis at hospitals in Framingham, Newton and Milford.

Dr. Macon has been a practicing neurosurgeon for more than 30 years. He has acted as design consultant for the South Easton, M.A.-based Spine Surgical Innovations, Inc. since 2006.

New technology

The Swivel Port System was designed to allow surgeons minimally invasive access to the lumbar region of the spine while reducing post-surgical pain and complications for patients.

"I've used these devices hundreds of times in many spine operations and been very satisfied with the results," Dr. Macon said. "My patients have less tissue damage, less pain during recovery and are able to quickly get back to their everyday lives."

In competing systems, a device called a dilator is placed over the surgical incision with the help of a sharp wire that is placed to access the spine. With the Swivel Port System, the muscle is split with a blunt instrument instead of a wire, opening an area for the port to be inserted. The Swivel Port works like a retractor when closed and becomes a tube when opened.

Dr. Macon's interest in the Swivel Port System was piqued when he met Russell Holmes, the CEO of Spine Surgical Innovations, Inc., at a neurosurgery conference. Holmes showed him a prototype device. "I thought that it was perfect. The required incision is quite small and you have a truly minimally invasive approach with maximum visualization of the spine that doesn't impede your achievement of the surgical goal."

Patient benefits

The Swivel Port System has less potential for injury than other methods. Unlike spine surgery systems that require dilators and wires, there is nothing sharp being pushed toward the spinal canal or nerve roots with this device and thus less risk of accidental damage to the spinal cord or nerve roots.

Advancements in technology have helped reduce the surgery incision from several inches to just one inch, a significant benefit to patients. "The smaller the incision and exposure that you require for your surgery, the less damage to the surrounding tissue," Dr. Macon said. "When I started doing spine surgery, patients would stay in the hospital for a week. Patients would have incisions 2-6 inches in length. Larger exposures meant the patients would be in significant pain while recovering. They'd have to take more time off work and would need more pain medicine. They would be at more risk of infection. Now that we do these smaller incisions, patients will go home either the same day or the next day and have much less pain."

Compared with conventional systems, the Swivel Port offers advantages to surgeons as well. "It is easy to use, safe and provides excellent surgical exposure," Dr. Macon said.

Value- based spine surgical procedures

Spine Surgical Innovations is proud to have a physician like Dr. Macon on board. "The appeal of working with Dr. Macon is that he is a forward-thinking surgeon," said Chris Zorn, the company's vice president. "He's practical but also very patient-oriented." SSI has also established the Minimal Incision - Maximum Sight (MIMS) Institute to help expand patients' awareness of this approach as a viable and safe surgical option.

"Dr. Macon will always look not only for what's new, but for what makes practical sense for his spine surgical patients," Zorn said.

For more information, please visit www.spinesurgicalinnovation.com, www.MIMS4Spine.com, and www.fnspine.com.