Medtronic News

Retrospective Study Shows New Device Significantly Reduces Blood Loss and Transfusions in Adolescent Scoliosis Corrective Surgery

MINNEAPOLIS, Nov 09, 2011 (BUSINESS WIRE) --

Medtronic, Inc. (NYSE: MDT) today reported results of an retrospective study available online and in an upcoming print edition of the *Journal of Spinal Disorders and Techniques*that demonstrates the effectiveness of the Aquamantys(R) System in limiting blood loss and reducing transfusions during spinal corrective surgery. Blood loss can present significant problems during or after spine surgery by increasing the need for transfusions, which have been shown to increase surgical complications and adverse events for patients.

"Hemostasis With a Bipolar Sealer During Surgical Correction of Adolescent Idiopathic Scoliosis" was co-authored by Keith P. Mankin, MD, from the Raleigh Orthopaedic Clinic, Pediatric Orthopaedic Service, Raleigh, NC. The study was supported, in part, by Salient Surgical Technologies Inc, a subsidiary of Medtronic, Inc. Dr. Mankin performed 176 consecutive corrective spinal surgeries for adolescent idiopathic scoliosis - 100 using the Aquamantys 2.3 bipolar sealer and 76 without the Aquamantys sealer. Retrospective reviews of the outcomes for estimated blood loss (EBL), EBL per level fused, and transfusions, were conducted. As compared to the control, Dr. Mankin observed that estimated total blood loss was significantly reduced with the use of the Aquamantys 2.3 bipolar sealer by 57 percent (435±192 mL bipolar sealer vs 1009±392mL control, $p<0.001$) and estimated blood loss per level fused was significantly reduced by 59 percent (39±17 mL bipolar sealer vs 95±33 mL control, $p<0.001$). He also showed a reduction of transfusions with the use of the Aquamantys 2.3 bipolar sealer from 6.6 percent to 0 ($p=0.014$). Complication rates were similar between the groups.

The Aquamantys 2.3 bipolar sealer delivers Transcollation(R) technology, a proprietary combination of radiofrequency (RF) energy and saline designed to provide hemostatic sealing of soft tissue and bone during surgery. Intra-operative bleeding can present a number of challenges for surgeons, including impaired visibility and additional operating time. For patients, extensive bleeding often results in the need for blood transfusions.

"The holy grail of spinal fusion in children has always been bloodless surgery. While we are not there yet, with the Aquamantys System and a blood conservation program, I feel that we are getting closer to this goal," said Dr. Mankin about the data.

"We are in this business of helping surgeons get patients back on their feet, and it is always exciting to see proof that our products are doing just that, especially in the pediatric population," said Mark Fletcher, president of the Surgical Technologies business at Medtronic. "We are continually finding areas where the Aquamantys System can give doctors the ability to better control intra-operative bleeding."

About Medtronic
Medtronic, Inc. (www.medtronic.com), headquartered in Minneapolis, is the global leader in medical technology - alleviating pain, restoring health and extending life for millions of people around the world.

Any forward-looking statements are subject to risks and uncertainties such as those described in Medtronic's periodic reports on file with the Securities and Exchange Commission. Actual results may differ materially from anticipated results.

SOURCE: Medtronic, Inc.

Medtronic, Inc.
Cindy Resman
Public Relations

763-505-0291
or
Jeff Warren
Investor Relations
763-505-2696

---

https://news.medtronic.com/2011-11-09-Retrospective-Study-Shows-New-Device-Significantly-Reduces-Blood-Loss-and-Transfusions-in-Adolescent-Scoliosis-Corrective-Surgery