



**FOR IMMEDIATE RELEASE**

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**STUDY FINDS STARION INSTRUMENTS' TISSUE WELDING TECHNOLOGY  
REDUCES PAIN AND BLEEDING IN TONSILLECTOMY PATIENTS**

*Technology may improve quality of recovery compared with cold dissection procedure*

**Sunnyvale, Calif. – November 6, 2007** – Starion Instruments, a leading surgical device company, today announced that a study published in the *Annals of Otolaryngology, Rhinology & Laryngology* found that the use of Starion's proprietary Tissue Welding Technology in total tonsillectomy patients resulted in significantly less intraoperative blood loss and lower pain scores compared with cold dissection tonsillectomy.

The study, *Thermal Welding Versus Cold Dissection Tonsillectomy: A Prospective, Randomized, Single-Blind Study in Adult Patients*, was led by Pelagia Stavroulaki, MD, PhD, Department of Otorhinolaryngology, General Hospital, Volos, Greece. Stavroulaki and her team compared the rates of post-operative morbidity in adults undergoing thermal (tissue) welding tonsillectomy versus cold dissection tonsillectomy. While tonsillectomies are one of the most common surgical procedures, morbidity, mainly hemorrhage and postoperative pain, remains high in adult patients.

The researchers randomized 32 adults with recurrent tonsillitis who were scheduled for elective tonsillectomy to the tissue welding technique or the cold dissection technique, with 16 patients in each group. They estimated intraoperative blood loss by measuring the amount in the suction bottle and by weighing the cotton pledgets before and after the procedures. The patients were discharged the day after surgery with an acetaminophen prescription for pain control and a chart to record the following factors on a daily basis for 10 days following surgery: intensity of post-operative pain, total analgesic requirements, last day of taking analgesics, and any other adverse events.

Stavroulaki and her team found that the rate of intraoperative blood loss was significantly lower in the tissue welding group ( $p < .0001$ ), with essentially no intraoperative bleeding observed. In addition, patients in the tissue welding group showed a general trend toward lower pain scores, with the difference being statistically significant from the first to the fourth post-operative days ( $p < .05$ ). Tissue welding demonstrated the greatest improvement in pain over cold dissection on the first post-operative day; a difference of 2.3 points on a 10-point scale.

Stavroulaki and her team also noted that Starion's tissue welding forceps are easy to handle without the need for special training. Since they are disposable, the forceps eliminate the risk of transmitting variant Creutzfeld-Jakob disease, which may exist with reusable instruments.



According to the researchers, tissue welding tonsillectomy “is a new innovation that appears to provide a valuable addition to our surgical armamentarium for reducing the postoperative morbidity that is usually experienced after total tonsillectomy.” Furthermore, the results “provide evidence that patients treated with the tissue welding tonsillectomy may experience improved quality of recovery.” Moving forward, they will investigate postoperative morbidity after tissue welding tonsillectomy in pediatric patients.

### **About Starion Instruments**

Starion Instruments designs, manufactures and sells surgical instruments that simultaneously seal and divide tissue during surgery, employing a proprietary tissue welding technology, which requires no electricity or ultrasonic energy across tissue. Starion products are in use worldwide in a variety of cardiac, gynecology, general surgery, otolaryngology and urology procedures. For more information, visit the company’s website at [www.starioninstruments.com](http://www.starioninstruments.com).

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