Medtronic Announces CE Mark of Its ReDuX(TM) Plier Instrument, an Innovative Device to Perform Osteotomies in Spinal Deformity Surgeries

The Associated Press

Novel Disruptive Instrument for Controlled and Progressive Restoration of the Sagittal Imbalance in Patient with Spinal Deformity

Medtronic, Inc. has announced the CE Mark and the European launch of the ReDuX Plier, a new instrument specially designed for use during osteotomies. With the launch of this first specially-designed surgical instrument in the spinal orthopaedic industry, physicians in the European community may now perform a more controlled osteotomy closure for people with a severe form of spinal curvature.

The new instrument, called ReDuX Plier, has been developed by Medtronic European Product Development Office based in Tolochenaz, Switzerland, following an original invention by Professor Le Huec, chief of the Spine Unit and chair of the Department of Orthopaedics and Traumatology at the Bordeaux University Hospital, France.

Adult spinal deformity poses many challenges to spine surgeons. In particular, a substantial imbalance in the sagittal plane sometimes cannot be corrected solely with a standard arthrodesis procedure. In these cases, spinal osteotomies must be performed to restore balance in both the sagittal and the coronal planes.1

The ReDuX Plier has been specially designed for use during osteotomies, and most specifically in pedicle substraction osteotomy (PSO). PSO is a complex and delicate surgical procedure for patients with sagittal imbalance, a condition where the back has lost the characteristic S-shape that allows the skeleton to resist gravity and keep people standing upright.2 These patients can live in considerable pain, unable to stand or walk properly.3

During a PSO a triangular wedge of bone is removed from the middle of a vertebrae, allowing it to be angled backwards to re-align the spine by increasing the backward curve (lordosis) in the lower (lumbar) spine.4 This creates a more upright posture and relieves pain.5

Surgical procedures which remove bone from the spine, such as PSO, can be extensive and complicated.3 Problems can include the collapse of vertebrae when compression is applied to close the two sides left after the removal of bone.4 As the ReDuX Plier is connected directly to the implants, it aims to protect the front of the vertebrae from collapse by driving the kinematic of the closure and dissipating stress onto the bone screws.

ReDuX Plier also provides a progressive correction, ensuring a more controlled

procedure at every stage of the operation.

Speaking at the SFCR (Société Française de Chirurgie Rachidienne) congress in Nice (13th June - 15th June 2013), Professor Le Huec commented: "The PSO procedure is an extremely powerful option for people with severe spinal curvatures, but the potential for complications has historically been very high. The instruments currently available were often too crude for the complex procedure, so working with Medtronic we have been able to produce specially-designed instruments which give surgeons greater control than ever before."

Steve Swinson, Medtronic vice-president Spinal & Biologics Western Europe and Canada, comments: "Medtronic is delighted to have worked closely with Professor Le Huec to make the ReDuX Plier available in Europe. Medtronic has a long history of working with surgeons to turn innovative ideas into practical improvements for patients. ReDuX Plier is just one example, a device which can tackle complex conditions. This is part of Medtronic's commitment to alleviating pain and restoring health for people all over the world."

ReDuX Plier is available for use across Europe. The product is not commercially available in the United States at this time.

About the Spinal Business at Medtronic
Medtronic's Spinal business, based in Memphis, Tenn., is the global leader in today's spine market and is committed to advancing the treatment of spinal conditions. The Spinal business collaborates with world-renowned surgeons, researchers and innovative partners to offer state-of-the-art products and technologies for orthopaedic and spinal conditions. Medtronic is committed to developing affordable, minimally invasive procedures that provide lifestyle friendly surgical therapies. More information about the company and its spinal treatments can be found at www.medtronic.com.

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.

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