## THINKING OUTSIDE OF THE BOX

Used for the first time in the UK recently, Gordian Surgical Ltd has introduced its ground-breaking novel port closure system. JLife profiles the product that is changing the face of laparoscopic surgery.

The 'Gordian knot' is a well-known adage about a difficult problem being solved by an unexpectedly simple method. Israeli company, Gordian Surgical, have taken this ancient proverb as the inspiration for its revolutionary new product, TroClose1200<sup>™</sup>, an integrated port closure keyhole system for the suturing of abdominal incisions during minimally invasive surgical procedures.

Gordian Surgical Ltd. based in the Galilee area of Misgav, Israel, was founded at the end of 2012 by forward-thinking physicians and an entrepreneurial inventor, whose aim was to design and produce surgical concepts borne from 'out-the-box' thinking.

The device was used by Professor Giles Toogood and team at Spire Leeds for the first time in the UK in March 2017, signalling the next phase of TroClose1200 being rolled out. Prior to this procedure the TroClose1200 was used by key opinion leaders (KOLs) in the US and throughout Europe.

## The Legend of the Knot

As a way of thanking the gods for his good fortune, King Midas used an intricate knot to tie his wagon to a pole, which he placed in the centre of a shrine, located in what is now modern day Turkey. An oracle foretold that whoever could loosen the knot would rule all of Asia. Over the years, thousands tried their hand at untying the knot. Only one succeeded: Alexander the Great. In need of an omen to prove to his troops and his enemies that his mission – to conquer the known world – was possible, he is said to have cried, "What does it matter how I loosen it?" drawn his sword, and in one powerful stroke, severed the knot.

Today, a 'Gordian knot' represents a difficult or unsolvable problem – a challenge. Gordian Surgical chose the name to represent the outsidethe-box thinking that typifies the company's ethos, most especially for revolutionising the technique for port closure.

## The TroClose1200

There are an estimated 3.5 million laparoscopic procedures performed annually in the US alone, and while laparoscopic procedures present a less invasive alternative to open surgeries, they often require as many as five ports, ranging in size from 5mm to 15mm. Existing manual closures require physician expertise and incomplete or insufficient closure can lead to hernias or serious complications.

Zvi Pe'er, Gordian Surgical's CEO who has over 25 years' experience in biotechnology and creating medical devices, noticed a gap in the market for an easy-to-use, cost-effective device that provided surgeons with a reliable method for suturing the connective tissue. Gordian's solution, the TroClose1200 gives surgeons a "two-in-one" functionality: acting both as a cannula, through which surgical instruments enter the abdomen, and as a device to close internal abdominal wall incisions made during surgery - increasing speed and decreasing risks. The sutures are inserted into the tissue at the beginning of the procedure and anchored to remain in place throughout the operation, allowing incisions to be closed easily and quickly upon removal of the device.

The TroClose1200 integrates a novel port closure system onto a trocar, a surgical instrument used as a port of entry into the abdomen in laparoscopic surgery. At the beginning of the procedure the surgeon positions the TroClose through the abdominal wall and then releases two proprietary sutures. The TroClose functions as a standard 12mm port through the operation. At the end of the procedure the surgeon is able to close the



The TroClose 1200 being used in the UK for this first time this year. L to R: Doni Mayerfeld, Gordian Surgical's marketing director, Dr. Nissim Geron, medical director for Gordian Surgical, Spire Leeds' Professor Giles Toogood, consultant HPB surgeon, Raza Jaffry, managing director of Novus Med UK, and the nurse team leader.

internal fascia opening with the TroClose stiches placed in the beginning.

The device has recently received US Food & Drug Administration (FDA) clearance, a major step in ensuring that a new medical innovation is used throughout the medical industry. CEO Zvi Pe'er said, "Receiving FDA clearance is a huge milestone in Gordian's strategic roadmap, and recent investment, led by B. Braun [German medical device company], allows us to move rapidly towards commercialisation of our device in the US, Europe and other markets."

For the UK and Europe, in August 2016, Gordian received CE mark for its TroClose1200, required for all new products which are subject to one or more of the European product safety directives, allowing for free movement of the product within the European market.

## In the UK

At the end of 2016, Novus Med, the UK commercial supplier to NHS which aims to provide innovative healthcare and patient technology with minimal cost to the current health system, partnered with Gordian Surgical for UK distribution.

Raza Jaffry, managing director and cofounder of Novus Med Ltd has over 26 years' experience working in the world of laparoscopy having previously held the position of UK sales and marketing director for the global giant Karl Storz. His respect and knowledge of the UK market led to a week-long roadshow in with some of the leading laparoscopic surgeons throughout the UK, in including a visit to Spire Leeds hospital. The device was demonstrated to Professor Giles Toogood who is one of the UK's leading HPB surgeons and presents at various international conferences. Raza has a long term association with UK Israel Business (North East) (UKIB) in Leeds and is planning to visit Israel with UKIB to meet with innovators of medical devices and bring these technologies to the UK and beyond.

Jane Clynes, regional director for UKIB, commented: "Following a committee meeting Stephen Mitchell was in touch with Raza for us to liaise and coordinate a meeting with all concerned. We are delighted that Spire Leeds took part in the roadshow and are excited to be working with all parties. We look forward to welcoming both Raza and Gordian Surgical to a future breakfast club."

To find out more, visit Gordiansurgical.com and Novus-med.com.