

An instrument to Close Fascia during Laparascopic Surgery

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Technology description

UNIVERSITY OF MISSOURI Office of Technology Management and Industry Relations Non-confidential Abstract of Invention UM Disclosure Number 15UMC035 Instrument to Close Fascia during Laparoscopic Surgery Innovation: To prevent post-laparoscopy trocar site herniation, a surgeon must accurately close the port site following removal of a large trocar cannula. MU's newly designed surgical instrument can be introduced through the current trocar puncture to place a suture in the deep fascia of the anterior abdominal wall. It is lightweight, easy to use, and may be operated quickly and efficiently to close a trocar puncture wound in an economical manner while avoiding incision extensions often associated with standard techniques. Background: Approximately 2.5 million laparoscopic surgery cases are performed annually in the US, while 7.5 million cases are performed annually worldwide. Studies show that trocar site hernias (TSH) occur in 1.5-3.0% post-laparoscopic surgery patients, often due to incomplete or improperly sutured fascia resulting from difficult to access fascial incisions associated with laparoscopy. This device is designed to simplify fascial suturing without extending the incision length. It can be used in standard laparoscopy procedures, can be introduced through the trocar puncture, and uses a suture closing mechanism that can be executed in a few simple steps. This instrument is a simple and affordable alternative to the often expensive and complex competing equipment and procedures currently on the market.

Application area

- General Surgery- Cholecystectomies, Hernia Repairs, Appendectomies, Anti-Reflux Surgeries - Bariatric Surgery- Gastric Bypass, Sleeve Gastrectomy, Gastric Banding - Gynecological Surgery - Urological Surgery - Colorectal Surgery

Advantages

- No extra instruments or complex multi-step processes required to place a suture in the fascial layer. - It is lightweight and economical. - Device is relatively easier to use and closing mechanism can be executed in few simple steps.

Patent status: In progress

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