

Intestinal Stapling Device

Researchers at the University of South Florida have developed an intestinal stapling device capable of both stapling and testing for post-operative leakage.

When colon and rectal cancers are surgically treated, there can often be post-operation complications. One of the most serious, even fatal, post-op complications is the development of a leak in the region where the patient's intestine has been cut, a section removed, and the intestine re-joined. These leaks can be caused by a number of factors including holes or defects in the staple lines where the intestine has been re-joined. Regrettably, devices currently being used do not permit the surgeon to test for leaks during the stapling procedure. To test for leaks, the surgeon must remove the stapling device, insert another device, such as a rigid proctoscope, and blow air into the intestine. In an effort to simplify this procedure, a better stapling device has been sought. In response to this challenge, a new stapling device with the capacity to concomitantly test for leakage has been developed.

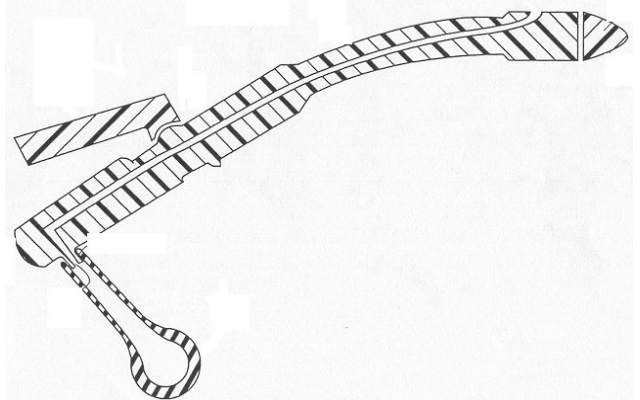
This stapling device is an elongated instrument sufficient in length to extend from outside the body into the area where 2 sections of the patient's intestines are being joined together. At one end (the distal end) of the device is a stapling tool. At the other end (the proximal end) is the handle for activating the stapling tool. The device has a lumen attached to a bulb at the proximal end for introducing air or fluid to the distal end.

This new stapling device will improve the operational procedure and overall quality of care compared to the current gold standard stapling device. By providing the surgeon the ability to staple and test for leaks with a single device and its applicability in operating situations involving collapsed orifices, this device can decrease operation time and stress to the joined tissue, thus leading to a decrease in post operative complications, and costs.

ADVANTAGES:

- **Reduced operation time and costs**
- **Less stress on joined tissue**
- **Insertable into a collapsed orifice**

Concomitant Stapling and Testing for Leaks



Schematic of the intestinal stapling device

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