



New Study Shows Robotic-Assisted Surgery Benefits for Inguinal Hernia Repair

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SUNNYVALE, Calif., May 03, 2018 (GLOBE NEWSWIRE) -- Patients undergoing robotic-assisted surgery using a *da Vinci* Surgical System to repair an inguinal hernia had fewer complications after discharge through 30 days than patients who underwent open surgery, according to a recent study published in *Hernia: The World Journal of Hernia and Abdominal Wall Surgery*.¹

An inguinal hernia occurs when tissue, such as a part of the intestine, pushes through a weak area of the lower abdominal wall, specifically in the inguinal canal. Inguinal hernias often develop over time due to strain and stress on weakened muscles in the groin area, and are typically repaired via open surgery.

Seven surgeons from six hospitals across the U.S. conducted the study—the largest, multi-center comparative study of robotic-assisted and open surgery for inguinal hernia repair, involving 1,254 subjects. The study, entitled “Open versus robotic-assisted transabdominal preperitoneal (R-TAPP) inguinal hernia repair: a multicenter matched analysis of clinical outcomes,” compared each surgeon’s initial, consecutive robotic-assisted inguinal hernia repair cases to open, consecutive inguinal hernia repair cases by the same surgeons.

After adjusting for potential differences in patient characteristics, an analysis of 444 patients in each study group showed robotic-assisted surgery associated with a significantly lower rate of complications after discharge through 30 days. Both surgical approaches showed similar rates of intra- and post-operation complications prior to discharge.

None of the patients undergoing a robotic-assisted inguinal hernia repair returned for reoperations related to the inguinal hernia repair within 30 days after discharge—whereas, five patients who received open surgery required reoperations related to their inguinal hernia repair during the same time period. Furthermore, a multivariate analysis showed open repair as well as patient age older than 65 as risk factors for complications after discharge through 30 days.

“Results from this study support the adoption of robotic-assisted, minimally invasive repair for inguinal hernia,” said Myriam Curet, M.D., Executive Vice President and Chief Medical Officer for Intuitive Surgical.

“Most inguinal hernia surgeries are still performed via open surgery,” said Curet. “The lower rate of complications after discharge through 30 days—especially the lower reoperation numbers—show that appropriately selected patients may benefit from minimally invasive surgery for this procedure.”

This study was a collaborative effort between Intuitive Surgical and the participating surgeons.

In addition to funding this study, Intuitive Surgical continues to work with the Americas Hernia Society Quality Collaborative Foundation (AHSQC) – a continuous quality improvement initiative created by the Americas Hernia Society. By working together, Intuitive Surgical supports the generation of real-world evidence for hernia repair across multiple surgical modalities. The AHSQC provides surgeons with a forum to prospectively collect real-world data on patient-centered outcomes for robotic-assisted, open and laparoscopic approaches, and has expanded to collect data on inguinal hernia repair in addition to ventral hernia repair. Intuitive Surgical’s collaboration contributes to AHSQC’s mission to maximize quality and value in hernia patient care through collaboration.

About Intuitive Surgical, Inc.

Intuitive Surgical, Inc. (Nasdaq:ISRG), headquartered in Sunnyvale, Calif., is a global leader in robotic-assisted, minimally invasive surgery. Intuitive Surgical develops, manufactures and markets the *da Vinci*® Surgical System.

About the *da Vinci* Surgical System

There are several models of the *da Vinci* Surgical System. The *da Vinci* Surgical Systems are designed to help surgeons perform minimally invasive surgery. *da Vinci* Systems are not programmed to perform surgery on their own. Instead, the procedure is performed entirely by a surgeon who controls the system. *da Vinci* Systems offer surgeons high-definition 3D vision, a magnified view, and robotic and computer assistance. They use specialized instrumentation, including a miniaturized surgical camera and wristed instruments (i.e., scissors, scalpels and forceps) that are designed to help with precise dissection and reconstruction deep inside the body.

Disclosure Information

Drs. Dickens, Gamagami, Gonzalez, and D’Amico have received compensation from Intuitive Surgical for consulting and/or educational services.

Important Safety Information

Surgical Risks of Hernia Repair (ventral, incisional, umbilical, inguinal): recurrence, bowel injury, infection of mesh, urinary retention. For inguinal hernia repair: testicular injury.

Patients should talk to their doctor to decide if *da Vinci* Surgery is right for them. Patients and doctors should review all available information on non-surgical and surgical options and associated risks in order to make an informed decision.

Serious complications may occur in any surgery, including *da Vinci*® Surgery, up to and including death. Serious risks include, but are not limited to, injury to tissues and organs and conversion to other surgical techniques, which could result in a longer operative time and/or increased complications. For Important Safety Information, including surgical risks, indications, and considerations and contraindications for use, please also refer to www.davincisurgery.com/safety and www.intuitivesurgical.com/safety.

Individual surgical results may vary.

¹Gamagami, R., Dickens, E., Gonzalez, A. et al. Hernia (2018). <https://doi.org/10.1007/s10029-018-1769-1>

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