UC San Diego Health

UC San Diego Center for Future of Surgery Performs Another Groundbreaking "Scarless" Surgery, U. S. First

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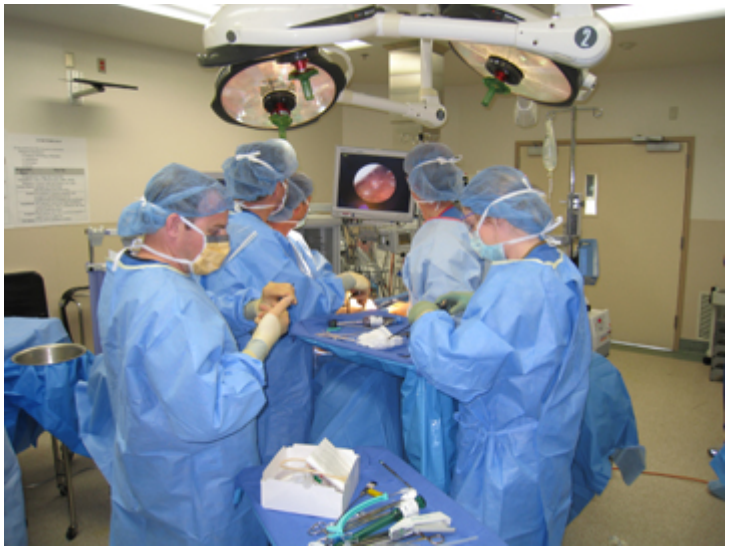
New Technology and Instruments Key to Incisionless Procedures

March 26, 2008, surgeons at UC San Diego Medical Center removed an inflamed appendix through a patient's vagina, a first in the United States. Following the 50-minute procedure, the patient, Diana Schlamadinger, reported only minor discomfort. Removal of diseased organs through the body's natural openings offers patients a rapid recovery, minimal pain, and no scarring. Key to these surgical clinical trials is collaboration with medical device companies to develop new minimally-invasive tools.

On Surgeons from UCSD Center for Future of Surgery remove appendix through vagina, a U.S. first.

The procedure, called Natural Orifice Translumenal Endoscopic Surgery (NOTES), involves passing surgical instruments through a natural orifice, such as the mouth or vagina, to remove a diseased organ such as an appendix or gallbladder. Only one incision is made through the belly button for the purpose of inserting a two millimeter camera into the abdominal cavity so the surgeons can safely access the surgical site.



The 50 minute procedure at UCSD Medical Center is part of an ongoing clinical trial.

Santiago Horgan, M.D., director of the UC San Diego Center for the Future of Surgery, is a world leader in minimally invasive surgeries, having performed 14 of these scarless NOTES procedures in the U.S. and Argentina. Horgan cites the critical role of biotechnology companies in bringing NOTES devices into the operating room for clinical trials.

"The path to innovation is dynamic, requiring quick response from the companies developing the tools," said Horgan, president of the Minimally Invasive Robotics Association. "Partnership with industry keeps us rolling from one success to another. The evolution of surgery to incisionless techniques is on the horizon."

By avoiding major incisions through the abdomen, patients may experience a quicker recovery with less pain while reducing the risk of post operative hernias. This procedure received approval for a limited number of patients by UC San Diego's Institutional Review Board (IRB) which oversees clinical research.

"The UC San Diego Center for the Future of Surgery is investigating and refining techniques that are rapidly transforming the world of surgery," said Mark A. Talamini, M.D., professor and chair of the Department of Surgery at UC San Diego Medical Center. "Imagine a day when surgery requires no incisions or just one tiny incision that is only millimeters in length. Scarless, painless techniques are what the UCSD Center for the Future of Surgery is setting the stage for right this minute. Patients deserve it."

Schlamadinger, a third-year graduate student at UC San Diego working toward her Ph.D. in chemistry, reported her pain as a '1' or a '0.5' on a scale of 1 to 10, with 1 being the lowest. The opportunity to participate in the clinical trial was attractive to the scientist in her.

"The surgery appealed to me because the work and study I do every day relates to science research and discovery," said Schlamadinger. "I understand the need for these trials to provide patients new information and new procedures."

This is the fourth NOTES surgery that UC San Diego Medical Center has performed. The first surgery took place in September 2007 and the most recent on March 26, 2008.

Talamini will assume the position of President of the Society of American Gastrointestinal and Endoscopic Surgeons (SAGES) in Philadelphia the second week of April 2008. SAGES represents a worldwide community of surgeons who are bringing minimal access surgery, endoscopy and emerging techniques to patients in every country.

Drs. Horgan and Talamini rely on minimally invasive tools to perform groundbreaking procedure.

Horgan and Talamini used FDA-cleared RealHand High Dexterity instruments, developed by Novare Surgical. These laparoscopic instruments give the surgeon greater dexterity and control to move around organs and blood vessels. RealHand allows the instrument tip to track the surgeon's hand movements and have been customized for transvaginal NOTES procedures. The surgery was guided by imagery enabled by a flexible, high-definition digital endoscope made by Olympus America.

In addition to Horgan and Talamini, the surgical team included: Bryan Sandler M.D., John Cullen M.D., Karl Limmer M.D., Emily Whitcomb, M.D., Benjamin Beal, M.D., Kathleen Naughton, R.N., and Jocelyn Floresca, R.N.

B-roll available upon request

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