Gallbladder removed without external incisions

Natural-orifice transluminal endoscopic surgery takes next step as gallbladder is removed through uterus using no external incisions

NEW YORK (July 28, 2008) -- In April of last year, surgeons at NewYork-Presbyterian Hospital/Columbia University Medical Center made headlines by removing a women's gallbladder through her uterus using a flexible endoscope, aided by several external incisions for added visibility. Now, they have performed the same procedure without a single external incision in what surgeons report may be the first surgery of its kind in the United States.

Led by Dr. Marc Bessler the procedure is offered as part of an ongoing clinical research trial and could prove to have advantages over traditional endoscopic surgery, including reduced pain, quicker recovery time and absence of visible scarring.

Employing this technique, called NOTES (natural-orifice transluminal endoscopic surgery), the endoscope was inserted through a one-inch incision behind the uterus and into her body cavity. Using that scope, the gallbladder was detached and removed through the incision behind the uterus. The area where the gallbladder was removed was then sutured. The three-hour outpatient procedure was performed to treat painful gallstones, which form when bile in the gallbladder hardens into pieces of stone-like material. Removal of the gallbladder is necessary in persistent and painful cases. A small and non-essential organ, the gallbladder stores and releases bile as part of the digestive process.

"This procedure marks the culmination of 15 years of advances that have made surgery less invasive in order to improve safety and reduce recovery time," says Dr. Bessler, director of laparoscopic surgery and director of the Center for Obesity Surgery at NewYork-Presbyterian Hospital/Columbia University Medical Center and assistant professor of surgery at Columbia University College of Physicians and Surgeons.
Beginning in the late 1980s, surgeons pioneered laparoscopic techniques for gallbladder surgery. Instead of the traditional 10-inch abdominal incision necessary for traditional open surgery, surgeons operated by inserting a camera and surgical instruments through a few small incisions. Nine out of 10 gallbladder surgeries are now performed this way.

Natural-orifice surgery has been mainly confined to treating conditions within the gastrointestinal tract. However, the NOTES approach now goes a step further with this surgery -- into the patient's abdominal cavity.

"Internal incisions, such as in the uterus, are less painful and may allow for quicker recovery than incisions in the abdominal wall," says Dr. Bessler.

In addition to gallbladder surgery, the NewYork-Presbyterian/Columbia clinical trial offers the NOTES procedure for appendectomy, abdominal exploration and biopsy. Currently the procedure is only available through the uterus. In the future, NOTES may be performed through the mouth or the rectum, making it available to men.

The NOTES procedure was performed by the team of Dr. Marc Bessler, Dr. Dennis L. Fowler (vice president and medical director for perioperative services at NewYork-Presbyterian Hospital/Columbia University Medical Center and the United States Surgical Professor of Clinical Surgery at Columbia University College of Physicians and Surgeons) and Dr. Andrew Gumbs, instructor in surgery at Columbia University College of Physicians and Surgeons and surgeon at NewYork-Presbyterian Hospital/Columbia University Medical Center.

First developed at Johns Hopkins, the first NOTES procedure is believed to have been performed by surgical teams in India and Brazil before it was available at NewYork-Presbyterian/Columbia.

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For more information, patients may call (212) 305-9506.

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