

Dialogue

News for physicians about Mayo Clinic

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 five minutes

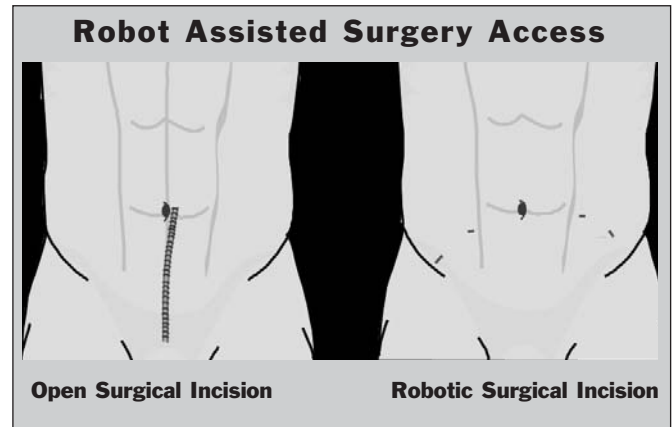
Robot Assisted Radical Cystectomy Benefits Patients

CLINICAL TIP
 Minimally invasive bladder removal surgery offers multiple patient benefits with no exclusion criteria.

Bladder removal to treat cancer is one of the most complicated urologic surgeries, involving removal of the prostate in men and the uterus, ovaries, and cervix in women, in addition to reconstructive procedures. Additionally, because 50 percent of bladder cancer cases are diagnosed in people older than 73, age-related surgical risks pose increased concerns.

Surgeons at Mayo Clinic are now performing robot assisted radical cystectomy, giving surgeons the control, range of motion, visualization and fine tissue manipulation of open surgery, but using small ports in a minimally invasive manner to reduce risks and speed recovery.

Although the laparoscopic procedure may take longer than a traditional open surgery, the experience is much less traumatic on the body. Patients generally lose only about 10 percent of the amount of blood as compared to when the body is opened surgically. Robot assisted radical cystectomy also translates to faster patient recovery. The procedure is performed through a small incision in



the navel, and patients generally leave the hospital after normal gastrointestinal function resumes 3-5 days post surgery, as compared to a 10-14 day hospital stay for an open procedure.

"This procedure offers a real advantage for patients," says Erik P. Castle, M.D., Mayo Clinic urologist. "It's less invasive and stressful to the body, and recovery time is minimal." Robot assisted radical cystectomy is an available option for nearly any patient requiring bladder resection, substitution or ileal conduit procedures. ■

Laparoscopic Approach for Ventral Hernia Repair Reduces Recurrence Rate

CLINICAL TIP
 Laparoscopic ventral hernia repair offers 10% recurrence rate vs. 20-40% with traditional approach.

Effective surgical repair of ventral (incisional) hernia repairs has long been problematic. The traditional open approach is a major surgery that involves incising and removing the existing surgical scar and inspecting the entire incision for hernia defects before beginning the repair. This creates a large wound and involves much surgical dissection.

Most of the 90,000 ventral hernia repairs performed each year in the U.S. are done using the traditional open approach. However, Mayo Clinic physicians have shown that more than 95 percent of ventral hernia repairs can be performed laparoscopically. "Almost every person in need of ventral hernia repair is a candidate for the

laparoscopic procedure," says Kristi L. Harold, M.D., Mayo Clinic surgeon.

In addition to minimizing trauma to the patient, the laparoscopic approach offers clear benefits over traditional open surgery including a lower infection rate and lower recurrence rate (less than 10 percent as opposed to between 20 and 40 percent for a traditional approach).

During the procedure, Mayo surgeons laparoscopically affix a prosthetic mesh under the hernia defect to the strong tissues of the abdominal wall. Depending on the size of the hernia, patients are generally discharged from the hospital anywhere from the same day of the procedure up to 72 hours afterward. ■

Multiple Myeloma Clinical Trial Finds Superior Treatment Results

CLINICAL TIP
Lenalidomide plus low-dose dexamethasone provides an effective, low-toxicity treatment strategy for multiple myeloma.

Results of a multiple myeloma clinical trial that included Mayo Clinic show a significant improvement in patient survival rates using lenalidomide plus low-dose dexamethasone therapy.

The study was activated in October 2004 to compare combination treatment of oral medications lenalidomide and either high- or low-dose dexamethasone in patients with newly diagnosed multiple myeloma. Researchers knew that low-dose dexamethasone treatment would be less toxic than higher levels, but the effectiveness of low-dose treatment in killing cancer remained questionable.

After meeting the initial accrual goal of 450 patients, investigators had intended to amend the study by including an additional 300 patients and trying various strategies to prevent treatment roadblocks.

However, low-dose treatment proved nearly as effective as high-dose at killing multiple myeloma cells,

and the reduced toxicity resulted in better survival rates. Lenalidomide plus high-dose dexamethasone had a one-year survival rate of 86 percent. The comparative therapy using low-dose dexamethasone showed a significantly higher 96.5 percent overall one-year survival rate.

The planned successor study using lenalidomide plus high-dose dexamethasone has closed early as a result of these findings, and all patients on the high-dose dexamethasone arm of the clinical trial have been moved to the low-dose arm.

"This is a highly effective and safe regimen that can be administered for the treatment of multiple myeloma," says Rafael Fonseca, M.D., hematologist, Mayo Clinic. "Patients can take this oral treatment and not even know they are on chemotherapy. That's how effective it is." ■

Multimodality Treatment for Pancreatic Cancer May Improve Survival Rates

CLINICAL TIP
Including both chemotherapy and radiation following surgery may significantly improve survival rates for patients with pancreatic cancer.

In the largest single-institution retrospective study to date, researchers at Mayo Clinic Cancer Center have shown that giving patients both radiation and chemotherapy after completely removing pancreatic cancer appears to improve overall survival rates.

In the study, a team of surgeons, radiation oncologists, and medical oncologists from Mayo's Minnesota and Arizona campuses examined the records of 472 consecutively-treated patients who had surgery with negative margins to remove pancreatic adenocarcinoma. The study excluded patients who had metastatic cancer, tumors that could not be removed or were not removed entirely, or slow growing tumor types.

Ultimately 454 patients were included in the final comparison of patients who received adjuvant therapy with those who had not. Of the 246 patients who received concurrent radiation and chemotherapy

following surgery, 50 percent survived two years, and 28 percent survived at least five years. Comparatively, of the 180 patients who received no additional therapy after surgery, the survival rates at two and five years were significantly less, at 39 percent and 17 percent respectively.

Additional chemotherapy after concurrent radiation and chemotherapy seemed to have an even greater effect on survival (61 percent and 34 percent survived two and five years), but only 28 patients received that combination-not enough for researchers to draw a firm conclusion regarding its effectiveness.

"Future trials are needed that evaluate sequencing of modalities," says Leonard Gunderson, M.D., Getz Family Professor and Chair of the Department of Radiation Oncology at Mayo Clinic. "However, it's clear that providing adjuvant therapy generally increases survival rates in patients with high risk tumors." ■

Research Protocol

Cardio-Pulmonary Impairment Following Pectus Repair Study Seeks Participants

Pectus excavatum (PE) and pectus carinatum (PC) are common congenital deformities associated with fatigue, dyspnea, chest discomfort and exercise intolerance. Despite numerous published reports in small groups of patients, there is no consensus upon what degree of physiological abnormality, if any, exists in this anomaly. Furthermore, convincing evidence of physiological improvement following surgical repair of the condition is lacking. Nevertheless, many patients report improvement in exercise tolerance, reduction in chest discomfort and less palpitations following surgical repair. Rigorous, systematic study of the anatomical deformity, physiological responses to exercise, symptoms and health related quality of life are sorely needed to resolve these dilemmas.

- Objective:** A detailed investigation of the cardiovascular and respiratory physiology and quality of life in patients with PE and PC.
- Methods:** 50 patients with symptomatic PE or PC will undergo Exercise Cardiopulmonary Stress test (CPET) to define cardiopulmonary abnormalities present before and after surgical correction. The SF-36 Health survey will also be administered pre- and post-operative.
- Results:** Improvements in patient's perceived health and tested respiratory mechanics, cardiac function and exercise performance will be identified by repeating the measurements six months following the operation.

Interested in this study: Contact Dr. Dawn Jaroszewski or Kathy Greenwell at 480-342-2270