

When routine surgery becomes a nightmare

Each month medical errors kill five times as many people in the U.S. as died in the September 11 attacks. Of the many categories medical errors fall into, equipment failure is in the top five. Within this group, a routine surgery called a laparoscopy, performed over 4.5 million times per year, poses a rare but serious risk.

Laparoscopies are widely utilized in outpatient surgeries for everything from the removal of ovarian cysts, to gallbladder removal, to hernia repair. These surgeries require small, minimally invasive incisions to be made in the abdominal region, through which wand-like electrosurgical equipment is placed in order to perform the operation. The surgeon then views an enlarged image of the procedure on a video monitor, while using energy in excess of 1300 Fahrenheit to cut and coagulate tissue inside the patient's abdomen.

Laparoscopies, however, have the unfortunate ability to backfire. In rare instances, insulation failure in the electrosurgical equipment allows stray energy to escape inside the patient and burn untargeted tissues outside of the surgeon's view. These unseen internal burns can result in peritonitis, sepsis and even death. The most feared of these complications is fecal peritonitis, with a mortality rate of 25%.

Trudy Hamilton, a former operating room nurse, was a healthy and active mother of two when she went in to have a routine gynecological procedure in 1991. Suffering a severely burned bowel as a result of a stray energy burn during her laparoscopy, Trudy was hospitalized five times for bowel obstructions stemming from the complications of her surgery. She lost four months of work, during which she endured excruciating pain that made it "hard to walk without it absolutely hurting."

In 2006, Aireen Andrew, a 39-year-old woman from Sri Lanka, also suffered a burned bowel as a result of an undetected energy burn during a laparoscopy. She was sent home after her surgery with painkillers despite telling nurses she was in so much pain she wanted to die. Aireen died of surgical complications only 34 hours later. Later blamed for her death, her doctors said it would have been impossible to know of the stray burns as they performed the operation.

Dr. Gerald Kirshenbaum, one of the premier laparoscopic surgeons in the United States, has performed over 10,000 laparoscopies. When asked how surgeons can avoid accidental burns from equipment malfunction during surgery, Dr. Kirshenbaum said he prefers a safety mechanism called Active Electrode Monitoring (AEM), a system that shuts the instrument down the instant any stray energy is detected, preventing a possible tissue burn injury to the patient. "I will refuse to use electrical current unless I have AEM."

Still suffering the effects of her surgical misfortune, now sixteen years later, Trudy Hamilton looks back on her experience with pain and regret. "I hope and pray that [my experience] keeps another patient from going through what I've been through...something a lot of patients don't survive."

Approximately 300 hospitals nationwide currently use AEM technology to help prevent unseen stray energy burns during laparoscopic surgery. Patients who are scheduled for laparoscopic surgery can contact Alan Schwartz at Encision Inc., 800-998-0986-the company that makes the AEM monitoring system-to find out if a hospital near you uses AEM.