Mortality Down for Esophageal Perforation Repair

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FROM THE ANNUAL MEETING OF THE SOCIETY OF THORACIC SURGEONS

FORT LAUDERDALE, FLA. — Contemporary repair of a perforated esophagus produced a lower mortality rate than was historically reported in a series of 97 patients managed at one center.

The mortality rate in the newly reported series was 8% for all patients, including those treated operatively and nonoperatively, Dr. W. Brent Keeling said at the annual meeting of the Society of Thoracic Surgeons.

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Major Finding: Esophageal perforation repair had an 8% mortality rate, compared with historic reports of 10%-40% mortality.

Data Source: Single-center review of 97 patients treated during 1997-2008.

Disclosures: Dr. Keeling and his associates had no disclosures for this topic.

In contrast, historic reports pegged the mortality rate at 10%-40%, said Dr. Keeling, a cardiothoracic surgeon at Emory University in Atlanta.

When appropriate, "buttressed primary repair should be considered primary treatment [for esophageal perforation], independent of the time of presentation," Dr. Keeling said.

In the series he reviewed, 55% of patients underwent repair within 24 hours of injury, 30% had treatment 24-72 hours after injury, and in 15%, the repair occurred more than 72 hours out from the perforation. Outcomes did not differ substantially regardless of the time to treatment; none of the patients treated more than 72 hours after the perforation died during the first 30 days following repair.

The review included patients treated for esophageal perforation at Emory during January 1997 to July 2008. It excluded 50 patients who had either an intraoperative perforation or were not cared for by a thoracic surgeon. Among the 97 patients included, 72 underwent operative repair and 25 were managed without surgery. Three-quarters of the 97 perforations were iatrogenic, with the remainder spontaneous. The patients' average age was 61 years, and 46% were women.

Operative patients had similar rates of mortality, complications, and respiratory failure, compared with patients managed without surgery, but their hospital length of stay was almost double.

The surgeons performed a primary repair on 57%, drainage or stenting in 31%, and esophageal resection in 7%. The remaining patients had diversion and exclusion.

Slightly more than half of the patients were treated within a day of their perforation, 30% presented within 24-72 hours, and 15% were first seen more than 3 days after their injury. Perforation occurred in a distal location in 79% of cases. Iatrogenic injury caused 88% of perforations in the nonoperative subgroup, all of whom presented within 72 hours; their average hospital length of stay was 15 days.

In a propensity-adjusted analysis, operative patients had similar rates of mortality, complications, and respiratory failure, compared with patients managed without surgery, but their average hospital length of stay—29 days—was almost double that of nonoperative patients. The three patients treated with stents had an average hospitalization of 11 days, a statistically significant difference, compared with the other surgical patients.

The results showed that esophageal resection can be done with low rates of morbidity and mortality. Stent-based repairs were limited to just three patients, but their use has increased recently, particularly in patients without malignancy. "Stents are perfect for the normal esophagus. We use stents in a hybrid repair approach," Dr. Keeling said. ■