

Drastic measures combat heart attack shock

Heart attack victims who survive the initial hit and land in a hospital might think that they are out of danger. During the first hours in intensive care, however, roughly 1 in 10 goes into cardiogenic shock, in which the body grows listless and the heart struggles to pump adequate blood to vital organs. This condition is fatal 80 percent of the time.

Physicians usually treat cardiogenic shock with massive doses of drugs designed to stabilize the patient and restore blood flow to the heart muscle. Less often, doctors use angioplasty—in which they open a coronary blockage by threading a balloon-tipped cable through an artery—or bypass surgery, which routes blood around the stoppage.

For heart attack patients under age 75, these invasive measures may save more lives than medicine alone, a new study shows.

Between 1993 and 1998, researchers tracked the progress of such patients with cardiogenic shock who were assigned to get only medication or both surgical treatment and drugs. Of 118 patients on medicine alone, 57 percent died within a month of their heart attack, while only 41 percent of 128 people treated promptly with both drugs and either angioplasty or bypass surgery died in that time, according to a study in the Aug. 26 *NEW ENGLAND JOURNAL OF MEDICINE*.

During the 6 months after a heart attack, 65 percent of patients who had gotten only the drugs died, as did 45 percent of those who received medicine with emergency angioplasty or surgery.

The survival numbers don't match the typical 80 percent mortality rate for cardiogenic shock because by the time patients could be enrolled in the study, they had already survived the critical first hour or two of shock, says coauthor Judith S. Hochman, a cardiologist at St. Luke's-Roosevelt Hospital Center and Columbia University, both in New York.

Indeed, an earlier study showed that roughly 40 percent of patients with cardiogenic shock die within the first hour of its onset. This fragility has left doctors loath to attempt invasive procedures early in such shock, says Eric R. Bates, a cardiologist at the University of Michigan in Ann Arbor. Nationwide, only about 13 percent of heart attack patients receive prompt angioplasty in response to cardiogenic shock, and even fewer get bypass surgery, Hochman says.

Some doctors may not have the expertise to perform these procedures, Bates says. "The other concern is that the patient has a high risk of dying whatever you do. There's a hesitation to attempt to do these procedures . . . in an era of scorecard medicine when mortality rates [for doctors] are published," he says.

Angioplasty and bypass surgery carry risk, says Hochman. "The surgeon will lose a lot of patients, but if you look at the long-term survival, it's [risk] worth taking."

"This is the largest randomized trial ever done in cardiogenic shock patients," says cardiologist Eric J. Topol of the Cleveland Clinic Foundation. "This group [of researchers] deserves a lot of credit." While the findings aren't as clear-cut as some researchers had hoped to see, he says, the data do indicate that "the more aggressive approach is providing some benefit."

Most small hospitals can't provide bypass surgery or even angioplasty. Nonetheless, Hochman believes the new data may lead more physicians to consider these measures, "even if it means that the transfer of an unstable patient is required to another facility."

The study also included 56 patients age 75 or older. In contrast to the younger group, these patients generally fared worse if they received angioplasty or surgery. "Older patients have [suffered] more wear and tear," Bates says, adding that as with any stress, a younger person is better able to tolerate the invasive procedures.

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