

Diabetics experience more complications following trauma

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Individuals with diabetes appear to spend more days in the intensive care unit, use more ventilator support and have more complications during hospitalization for trauma than non-diabetics, according to a report in the July issue of Archives of Surgery, one of the JAMA/Archives journals.

Approximately 17 million Americans have diabetes, with one-third remaining undiagnosed, according to background information in the article. These patients develop complications more frequently and do worse after an acute illness than individuals without diabetes. Studies show that diabetics do worse after being hospitalized for stroke, heart attack and heart surgery, but little is known about their outcomes after trauma.

Rehan Ahmad, D.O., and colleagues at the Penn State College of Medicine and Milton S. Hershey Medical Center, Hershey, Penn., used a statewide database to identify 12,489 patients with diabetes who were hospitalized at 27 trauma centers between 1984 and 2002. They then selected an additional 12,489 patients who were the same age and sex and had the same severity of injury but did not have diabetes for comparison.

There was no difference between the two groups in death rates or length of hospital stay. However, compared with patients who did not have diabetes, patients with diabetes:

“Patients with diabetes mellitus were less likely to be discharged to home and were more likely to require skilled nursing care after discharge compared with patients who did not have diabetes mellitus,” the authors write. “This may have accounted for the similarity in overall hospital length of stay between the diabetes mellitus and non–diabetes mellitus groups. In addition, improved diabetes mellitus treatment modalities and advances in critical care and trauma resuscitation likely contributed to comparable mortality rates between the two groups, despite the greater morbidity associated with having diabetes mellitus.”

Previous studies have demonstrated that diabetes reduces the effectiveness of some components of the immune system, the authors continue. “Results from this study confirm that patients with diabetes mellitus are at higher risk for developing an infectious complication, despite matching for sex, age and the severity of injury,” they conclude. “They also require a higher level of care, which adds to the cost of hospitalization. Future studies are needed to evaluate the effect of improved glycemic control on hospitalized patients with diabetes mellitus involved in trauma.”

Source: JAMA and Archives Journals

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