

Perioperative Management of Patients with Diabetes Undergoing Ambulatory Elective Surgery

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Abstract

Objective:

The objective was to assess processes of care for patients with diabetes undergoing elective surgery.

Methods:

A retrospective review of medical records was conducted to determine frequency of perioperative glucose monitoring, changes in glucose control, and treatment of intraoperative hyperglycemia.

Results:

A total of 268 patients underwent 287 elective procedures. Mean age was 67 years, 63% were men, 97% had type 2 diabetes, and most (57%) were treated with oral hypoglycemic agents. Average perioperative time was approximately 8 h. Mean preoperative hemoglobin A1c was 7.0%; however, this value was checked in only 52% of cases. A glucose measurement was obtained in 89% of cases in the preoperative area and in 87% in the postanesthesia care unit, but in only 33% of cases did a value get checked intraoperatively. Average glucose was 139 mg/dl preoperatively, increasing to 166 mg/dl postoperatively ($p < .001$). Glucose levels increased regardless of type of outpatient medical therapy used to treat hyperglycemia, except for those on combination oral agents plus insulin ($p = .06$).

Conclusions:

These data indicate suboptimal documentation of outpatient hemoglobin A1c. Intraoperative glucose monitoring seldom occurred, despite prolonged periods under anesthesia and perioperative deterioration of glycemic control. Standards need to be developed and interventions are needed to enhance management of diabetes patients undergoing elective procedures.

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Abbreviations: (BG) blood glucose, (HbA1c) hemoglobin A1c, (POC) point of care, (SD) standard deviation

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