

# Improvement of hyperglycemia in a diabetic gastric cancer patient after total gastrectomy. A case report.

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## Background

- Some studies reported a significant increase in the risk of developing cancer in type 2 diabetic patients.
- However, the effect of cancer on developing insulin resistance and diabetes is obscure.

## Case presentation

- A 73-year-old hypertensive and type 2 diabetic female patient presented to the hospital with nausea and 3 months history of weight loss and epigastric pain, and melena since 2 weeks.
- The patient had no history of DKA and denied any surgical history.

- Fasting blood glucose test and CT abdomen were done. Fasting blood glucose was 211 mg/dl.
- CT abdomen revealed diffuse thickening of the distal gastric body and antrum 8mm in diameter, therefore endoscopic biopsy was performed and revealed moderately differentiated gastric adenocarcinoma of intestinal type.
- The patient received IV insulin mixtard 30/70, 25 unit in the morning and 15 unit at night to control hyperglycemia.
- Laboratory investigations were done for preparation of total gastrectomy + Roux-en-Y operation.
  - The patient was anemic and received RBCs to increase the level of haemoglobin.
  - After 5 days of the surgical operation, fasting blood glucose decreased to 107 mg/dl but was still above the normal range. After a week, random blood glucose was 85 mg/dl.

## summary

We report a case of hyperglycemia in a diabetic patient after developing gastric cancer, who underwent total gastrectomy and the blood glucose level became normal after the surgical operation.

## Conclusions

Gastric cancer may increase the risk of hyperglycemia or insulin resistance and glycemic control may improve after total gastrectomy. More research is required to understand this link.

## Abbreviations

CT= computed tomography  
IV = intravenous  
DKA = diabetic ketoacidosis