**Título:** “A pancreatic’s double vision”

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**Área Terapêutica/Tema:** Prática baseada na evidência e melhoria da qualidade (Evidence-based Practice and Quality Improvement)

**Resumo:**

INTRODUCTION

Insulinomas are rare pancreatic neuroendocrine tumors with an incidence of 1-4 cases per million per year. Usually benign, but they produce symptoms due to hypersecretion of

insulin from β-cells. Symptoms can be neuroglycopenic or adrenergic, resulting from the catecholamine response to hypoglicemia.

Surgical excision of the tumor is the definitive treatment. Medical management can prevent or reduce symptoms in patients who are not surgical candidates or who are waiting for surgery.

The main aim of anesthetic management is to prevent hypoglycemia until tumor resection and the control of rebound hyperglycemia soon after resection.

CASE REPORT

We report the case of a 57-year-old man, ASA II, diagnosed with an insulinoma scheduled for a cephalic duodenopancreatectomy.

The patient had a past history of double vision, headaches and seizures due to the insulinoma and had no medical management besides avoiding physical activity.

Fasting period of 6 hours for solids and 2 hours for clear liquids was respected. Blood glucose level before induction was 84 mg/dL.

A combined thoracic epidural with general anesthesia was performed. Anesthetic induction and maintenance was made with propofol, bolus fentanyl and epidural 0,2% ropivacaine. A central venous catheter was placed and standard ASA monitoring with BIS and invasive blood pressure was applied. Intraoperatively, blood glucose level was checked every 30 minutes, ranging between 87 to 144 mg/dL. Glucose infusion was titrated according to blood glucose (2-4ml/Kg/h). Antiemetic prophylaxis was accomplished with dexametasone 4 mg and ondansetron 4 mg. The surgery was completed in five hours.

Patient was transferred to an intermediate care unit and the immediate postoperative period was uneventful, without either hypo or hyperglycemic episodes.

DISCUSSION

The major anesthetic challenge in insulinoma is prevention and control of wide swings in blood glucose concentrations during the perioperative period to prevent cerebral damage. Intraoperatively, there may be severe hypoglycemia while handling the tumor, symptoms of which remain masked under general anesthesia. Glucose infusion and frequent plasma glucose monitoring are important to maintaining normoglycemia.

Even though, no specific recommendations are available regarding anesthetic agents, the anesthetic technique should include drugs that decrease the cerebral metabolic rate for oxygen. Besides this, propofol has no effect on the release of insulin and glucose regulation.

Blood glucose monitoring must continue in the postoperative period until normalization of glucose levels.

LEARNING POINTS:

Insulinoma is a rare tumor that presents some challenges to the anaesthesiologist.

Special considerations must be taken in maintaining optimum glucose levels and prevent wide swings in blood glucose perioperatively in order to prevent neurologic damage.

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