

solved with modification of ventilation mode (from V-control to PCV-VG).

**Conclusion** This type of anesthesia has been proven as the best cost-benefit solution, not only for our patients, but also for our hospital's capacities and expenses.

**Key words:** laparoscopic cholecystectomy, general anesthesia, shorter anesthesia time

## COMPARISON OF SEVOFLURANE AND DESFLURANE ON EARLY RECOVERY PROFILES

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### Abstract

**Introduction** The pharmacokinetics of desflurane and sevoflurane favor better intraoperative control of anesthesia and faster postoperative recovery. They have a lower blood/gas coefficient of isoflurane and halothane. Low fat/gas coefficient and low brain/blood coefficient of desflurane leads to early elimination leading to a faster awakening from anesthesia. This leads to faster return of cognitive function and faster discharge from PACU.

**Objectives** The purpose of this case report is to compare emergence time and time of return to cognitive function in two patients with general elective inhalation anesthesia, maintained with sevoflurane and desflurane respectively under standardized conditions.

**Material and methods** The case report included ASA I, II patients undergoing a colorectal abdominal pathology operation were randomly assigned to receive desflurane and sevoflurane using standard hemodynamic monitoring, Train of four (TOF) and Bispectral Index System (BIS) to determine the depth of anesthesia. The time required for extubation, eye opening, verbal response and modified Aldrete score 9 were recorded.

**Results** The results, expressed in minutes obtained in both patients demonstrate significantly shorter recovery times in the patient who received a desflurane inhalation anesthetic, compared to the patient who received a sevoflurane inhalation anesthetic when conducting general anesthesia. This is thought to be due to the faster kinetic profile of desflurane, leading to accelerated elimination in the patient.

**Conclusion** The case report underscores that the time required for early recovery from anesthesia is markedly shorter in the patient receiving desflurane compared with the patient administered sevoflurane anesthesia. This finding emphasizes the potential benefits of desflurane in optimizing perioperative outcomes, including faster emergence and cognitive recovery.

**Keywords:** desflurane, sevoflurane, inhalational anesthetics, emergence

## ANESTHESIA FOR SPLENECTOMY – CASE REPORT

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**Aim** - The development and availability of diagnostic and therapeutic procedures allow greater safety in patients undergoing high-risk surgery. Splenectomy is surgical intervention with potential complications related with bleeding and impaired coagulation. The purpose of this paper is to show that the appropriate and the individual preoperative assessment of the patient, as well as involvement of multidisciplinary team in the process of entire treatment is very important to reduce the complications of this type of surgery.

**Materials and methods** – Case of 47 years old woman, admitted to hospital with palpable large abdominal mass, loss of weight in last 2-3 months and thrombocytopenia. On CT scan of abdomen was detected splenomegaly, with extremely large dimensions of the spleen. Laboratory tests were performed, revealed pancytopenia and reduced aggregation of platelets. A hematologist was consulted and on bone marrow biopsy, lymphoproliferative disease was not detected. Spleen biopsy was rejected, because of thrombocytopenia and diagnostic splenectomy was indicated by abdominal surgeon. The patient was prepared for elective surgery within a few days and corticosteroids and tranexamic acid was administered by recommendation of transfusionist. Platelets count was tested every day, but was not raised enough. The surgery was performed in general anesthesia, using midazolam, propofol, remifentanyl and sevoflurane. During the surgery, patient was with stable blood pressure and heart rate. After spleen removal, thrombocyte mass was transfused. In postoperative period, the patient was treated for three days in intensive care unit and after platelets count increased and hemostatic test were normal, the treatment was continued on digestive surgery department.

**Conclusion** - This type of surgical procedure requires adequate preoperative assessment and anesthesia for better outcome. If potential complications are predicted and treated promptly, the risk of this type of surgery can be significantly reduced.

**Key words:** splenomegaly, splenectomy, thrombocytopenia, bleeding, coagulopathy.

## ACHIEVING HEMODYNAMIC STABILITY DURING INTUBATION USING DEXMEDETOMIDINE BEFORE INDUCTION TO GENERAL ANESTHESIA

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**ABSTRACT:** Dexmedetomidine is widely used in the operating rooms and ICU circumstances of today. It is commonly utilized for light or conscious sedation, analgesia or weaning attempts from mechanical ventilation in the ICU settings. It provides hemodynamic and circulatory stability, while imposing light sedation and superficial analgesia during these procedures. This was our motive to provide a smooth course prior to intubation, in order to eliminate the post-intubation spikes in vital parameters.

**INTRODUCTION:** This case report tries to provide an answer to the common unwanted hemodynamic instability in patients that undergo general anesthesia induction.

**CASE DESCRIPTION:** We used Dexmedetomidine in titrated concentrations according to the patient’s physiological status. The one we chose was an ASA=2 patient, that had moderate hypertension (20% above of the average referent value).

We used Dexmedetomidine in a dose of 1µg/kg, administered through a continuous infusion pump. We measured systolic, mean and diastolic blood pressure and heart rate in six time intervals: 5-10-15 minutes prior, and 5-10-15 minutes subsequent.

**RESULTS: 1.1.** Before intubation: The systolic, diastolic, MAP and hart rate gradually decreased in the 15 minute interval for approximately 8 units each

**1.2** After intubation: The systolic, diastolic, MAP and hart rate decreased for approximately 10 units each.

**CONCLUSION:** Using a continuous infusion of Dexmedetomidine in a dose of 1µg/kg, we succeeded in establishing a smooth induction, without any drastic fluctuations in blood pressure during the peri-intubation process.