**Título:** General Anesthesia in a patient with a pulmonar carcinoid tumor: a case report

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

**Resumo:**

Introduction: Carcinoid tumors originate from neuroendocrine cells, are uncommon and present with slow growth. They have the potential to metastasize and the ability to secrete bioactive substances which can lead to a carcinoid syndrome [1,2]. Carcinoid crisis is a life-threatening exacerbation of the carcinoid syndrome that may be triggered by manipulation of the tumor or during anesthesia. It presents as a real challenge to the anesthesiologist because it can provoke severe oscillations of blood pressure, flushing, bronchospasm and arrhythmias that are unresponsive to conventional therapies [3].

Case Report: We report our anesthetic management of a 63-year-old male with a pulmonar carcinoid tumor with liver and bone metastases that was submitted to surgical correction of bilateral inguinal hernia. The usual medication included a monthly injection of 30mg of octreotide. Before induction an arterial catheter was placed and octreotide infusion was initiated at 25mcg/h. We used fentanyl, propofol and rocuronium in the induction and sevoflurane for maintenance. The procedure had a duration of approximately 60 minutes and there were no complications, with hemodynamic and ventilatory stability. The octreotide infusion was maintained for 24 hours after the surgery and the patient stayed in the Post Anesthesia Care Unit for surveillance.

Discussion: Carcinoid crisis is a life-threatening complication and can be difficult to manage. The anesthesiologist must focus on preventing stressful situations than can provoke the release of bioactive substances. Most patients with carcinoid tumors are submitted to general anesthesia to avoid sympathectomy related to neuraxial anesthesia [1,3].  Prior to induction, placement of an arterial catheter is recommended [1]. Propofol may be the most appropriate induction agent since it is more effective in supressing the sympathetic reaction to intubation [1]. Opioids and non-depolarizing neuromuscular blocking agents that cause histamine release must be avoided [3]. A good anesthetic depth and analgesia are essential to prevent stimulation of sympathetic activity [1].

Octreotide is the drug of choice to prevent and treat carcinoid crisis. However, the literature is scarce and contradictory regarding the efficacy and ideal dose for the anesthetic management. Even though due to its low cost and high safety profile, octreotide continues to be used by many anesthesiologists [3].

Learning Points:

Carcinoid crisis is life-threatening and difficult to manage

Anesthesiologists must prevent stressful situations that can provoke the release of bioactive substances

Although controversial, octreotide appears to play a role in the prevention and treatment of carcinoid crisis and should be available

[1] Journal of Clinical Anesthesia (2011) 23, 329-341

[2] Journal of Clinical Anesthesia (2016) 32, 189-193

[3] Anesthesiology Clin 35 (2017) 327-339