REV COLOMB ANESTESIOL. 2016;xxx(xx):xxx–xxx

Revista Colombiana de Anestesiología
Colombian Journal of Anesthesiology
www.revcolanest.com.co

Case report

Hemicolectomy in a patient with aortic valve disease: Case report☆

*María Ángeles Rodríguez-Navarro**, *Daniel Rastrollo-Peña*, *Juan Iranzo-Reverter*, *José Luis Sánchez-Ortega*, *Rosario García-Fernández*, *Clara Díaz-Alejo*

Hospital General Universitario José Mª Morales Meseguer, Anaesthesia, Resuscitation and Pain Therapy Service, Murcia, Spain

ARTICLE INFO

Article history:
Received 22 June 2015
Accepted 16 May 2016
Available online xxx

Keywords:
Colectomy
Anesthesia
Monitoring, Intraoperative
Aortic valve
Heart diseases

ABSTRACT

Patients with valve disease are at a higher risk of perioperative complications in the context of non-cardiac surgery. The active involvement of the anaesthetist from the moment of the pre-anaesthesia assessment to determine the severity of the disease is crucial.

The purpose of this report on the management of a clinical case is to highlight the need for a multidisciplinary approach to the patient with heart disease.

We present the case of a patient in the eighth decade of life with severe aortic stenosis, and a 46 mm infra-renal abdominal aortic aneurysm; chronic obstructive pulmonary disease, controlled arterial hypertension; and a lymphoproliferative process. Following the pre-anaesthesia assessment, valve repair surgery was indicated prior to a surgical procedure for colon cancer resection. Key to the successful management of this patient was pre-operative optimization with cardiac surgery and adjustment of the pharmacological treatment, plus haemodynamic monitoring as a basis for decision-making during the perioperative period using a minimally invasive device (Vigileo®). Spinal analgesia with intrathecal morphine was combined with general anaesthesia. The patient remained stable with CI 2.3–3 l/min/m^2, SVV 2–7% and $ScvO_2$ 74–67%.

As a result of the successful anaesthetic and surgical process, we concluded that it is our duty at the present time to know and apply the recommendations contained in the guidelines developed by the anaesthesia and cardiology societies and their regular updates, as they allow clinicians to make decisions in accordance with evidence-based protocols.

☆ Please cite this article as: Rodríguez-Navarro MÁ, Rastrollo-Peña D, Iranzo-Reverter J, Sánchez-Ortega JL, García-Fernández R, Díaz-Alejo C. Hemicolectomía en un paciente con valvulopatía aórtica: reporte de caso. Rev Colomb Anestesiol. 2016. http://dx.doi.org/10.1016/j.rca.2016.05.002

* *Corresponding author at*: Servicio de Anestesiología, Reanimación y Terapia del dolor, C/ Marqués de los Velez s/n Murcia, CP: 30009 Murcia, Spain.
E-mail address: marodrigueznavarro@yahoo.es (M.Á. Rodríguez-Navarro).

2256-2087/

Hemicolectomía en un paciente con valvulopatía aórtica: reporte de caso

Palabras clave:
Colectomia
Anestesia
Monitoreo intraoperatorio
Válvula aórtica
Cardiopatías

RESUMEN

Los pacientes con enfermedad valvular presentan mayor riesgo de complicaciones perioperatorias en el contexto de cirugía no cardiaca. La importancia del anestesiólogo desde la consulta de preanestesia para valorar la severidad de la enfermedad y su intervención activa es determinante.

El manejo de este caso clínico se reporta para poner en valor la necesidad que tiene el paciente cardiópata de ser atendido de manera multidisciplinar.

Presentamos el caso de un paciente de 80 años con estenosis aórtica severa, aneurisma de aorta abdominal infrarrenal de 46 mm; enfermedad pulmonar obstructiva crónica, hipertensión arterial controlada; proceso linfoproliferativo. Tras valoración preanestésica se indicó cirugía valvular reparadora previa a la cirugía por cáncer de colon. La optimización preoperatoria mediante la cirugía cardiaca y el ajuste del tratamiento farmacológico, así como el apoyo en la monitorización hemodinámica para la toma de decisiones durante el periodo perioperatorio, mediante un dispositivo mínimamente invasivo (Vigileo®), fueron las claves en el correcto manejo de este paciente; combinamos raquianalgesia con morfina intratecal y anestesia general. El paciente se mantuvo estable con IC 2.3 - 3 l/min/m^2, VVS 2 - 7% y ScvO2 74 - 67%.

Tras el éxito del proceso anestésico-quirúrgico concluimos que hoy en día tenemos la obligación de conocer y aplicar las recomendaciones disponibles en las guías elaboradas por las sociedades de anestesiología y cardiología, de forma conjunta, que se actualizan continuamente y permiten al clínico protocolizar la toma de decisiones basándose en la evidencia científica.

Introduction

Since the implementation of protocols for pre-anaesthesia assessment, anaesthetists play a crucial role in optimizing the outcomes of the process of anaesthesia and surgery. This goal is more critical still in patients with heart disease, and guidelines have been developed to provide recommendations on the care for these patients.[1,2] These guidelines must be applied during the pre-operative, intra-operative and post-operative periods and range from the modification of an inadequate pharmacological treatment to prior cardiac surgery and careful intra-operative and post-operative haemodynamic monitoring. Guidelines are based on scientific evidence and are developed jointly by expert cardiologists and anaesthetists. The literature shows that in elderly patients with severe aortic stenosis, which was the case of our patient, survival improves significantly when interventions are used, as compared with non-intervention.[3–5]

At present, anaesthetists play a key role in optimizing the patient's condition and their intervention does not result in a significant delay.

Clinical case

An 80 year-old male patient with rectal neoplasia in whom assessment revealed asymptomatic severe aortic stenosis (valve area 0.8 cm^2); a 46 mm infra-renal abdominal aortic aneurysm; chronic obstructive pulmonary disease; arterial hypertension and a lymphoproliferative process. Following the cardiology consult, it was decided to take the patient to valve repair and placement of a no. 23 biological prosthesis through a ministernotomy approach.

The patient was referred 4 months later for a new assessment after the valve exchange procedure and neoadjuvant therapy to shrink the tumour, and re-assessment for the oncology surgery indication.

The new echocardiogram showed a slightly dilated, normally functioning left ventricle (FEV1 65%), with no contractility abnormalities; a dysfunctional biologic prosthesis with maximum and mean gradients of 45 and 23 mmHg and impressive peri-prosthetic leaks; moderate-to-severe tricuspid regurgitation with an estimated PASP of 50 mmHg; and bi-atrial dilatation (AI 47 mm–31 cm^2).

During the period following valve exchange and chemotherapy, the patient had two episodes of left heart failure, which responded to pharmacological treatment. Cardiac catheterization showed normal coronary arteries.

The patient was on treatment with bisoprolol, terazosine, budesonide, ipratropium bromide, atorvastatin, irbesartan, ferrous sulphate, potassium supplementation, and ranitidine.

Following reassessment, the patient was diagnosed with severe postoperative aortic regurgitation due to biological prosthesis dysfunction, with good systolic function; functional class II; COPD and moderate pulmonary hypertension. Pharmacological treatment was optimized with discontinuation of bisoprolol and atorvastatin and addition of enalapril and furosemide. The patient was informed of the anaesthesia and surgical risk, and the informed consent was obtained.