



CASE REPORT

Management of peri-operative anaemia in a patient with rare alloantibodies scheduled for oesophagectomy[☆]



E. García^{a,*}, M.P. Blanco^a, S. Riaño^a, I. González-Mendibil^a, T. Carrascosa^b, M.T. Antolín^c

^a Servicio de Anestesiología, Reanimación y Tratamiento del Dolor, Hospital Galdakao-Usansolo, Galdakao, Spain

^b Servicio de Hematología, Hospital Galdakao-Usansolo, Galdakao, Spain

^c Área de Hospitalización, Hospital Galdakao-Usansolo, Galdakao, Spain

Received 5 October 2017; accepted 8 January 2018

Available online 6 July 2018

KEYWORDS

Patient blood management;
Rare alloantibodies;
Fast-track surgery;
Enhanced recovery after surgery

Abstract A description is presented on the management of a patient with an oesophageal neoplasm scheduled for oesophagectomy. Alloantibodies were detected during a blood components reservation procedure, which made it almost impossible to obtain compatible blood. Peri-operative anaemia management or “Patient Blood Management” should be routinely performed in all patients at transfusion risk. This strategy has been considered as one of the actions to bear in mind in fast-track surgery or enhanced recovery after surgery.

© 2018 Sociedad Española de Anestesiología, Reanimación y Terapéutica del Dolor. Published by Elsevier España, S.L.U. All rights reserved.

PALABRAS CLAVE

Patient blood management;
Aloanticuerpos irregulares;
Rehabilitación

Manejo de la anemia perioperatoria en paciente con aloanticuerpos programada para esofagectomía

Resumen Describimos el manejo de una paciente programada para esofagectomía por neoplasia a la que durante el proceso de reserva de hemoderivados le fueron detectados aloanticuerpos, que prácticamente imposibilitaban la obtención de sangre compatible. El manejo de la anemia perioperatoria («patient blood management») se debe realizar rutinariamente en

[☆] Please cite this article as: García E, Blanco MP, Riaño S, González-Mendibil I, Carrascosa T, Antolín MT. Manejo de la anemia perioperatoria en paciente con aloanticuerpos programada para esofagectomía. Rev Esp Anesthesiol Reanim. 2018;65:403–406.

* Corresponding author.

E-mail address: eduardo.garciapascual@osakidetza.eus (E. García).

multimodal
quirúrgica;
Programa de
recuperación
intensificada

los pacientes quirúrgicos con riesgo de transfusión. Esta estrategia se ha considerado como una de las medidas a tener en cuenta en la rehabilitación multimodal quirúrgica o programa de recuperación intensificada.

© 2018 Sociedad Española de Anestesiología, Reanimación y Terapéutica del Dolor. Publicado por Elsevier España, S.L.U. Todos los derechos reservados.

Introduction

Multimodal rehabilitation, otherwise known as fast-track surgery or enhanced recovery after surgery (ERAS), consists of a series of perioperative measures and strategies designed to reduce the secondary stress caused by surgical interventions (Sx), thereby hastening postoperative recovery of surgical patients and reducing the risk of complications and mortality.¹ Programmes designed to optimise the status of surgical patients at risk of blood transfusion, known as patient blood management, were developed independently but are now an integral part of ERAS perioperative strategies.^{2,3}

We describe the management of a patient scheduled for oesophagectomy due to neoplasia. A blood analysis performed for the purpose of ordering blood for transfusion showed the presence of alloantibodies, which made it practically impossible to obtain compatible blood.

Case report

A 64-year-old woman classified as American Society of Anesthesiologists class 2. She was diagnosed with mid-oesophageal squamous-cell carcinoma, with no signs of locoregional infiltration, with subcarinal adenopathy measuring 1 cm. The patient was scheduled for laparoscopic oesophagectomy. Her history included chronic oesophagitis that started at the age of 3, due to caustic ingestion. She had required oesophageal dilatation on several occasions, and also presented fibromyalgia and generalised osteoarthritis. Her background treatment was lansoprazole, tramadol, paracetamol, escitalopram and lormetazepam.

Sx was postponed because cross-testing showed the presence of anti-K and anti-Fy (b) specific alloantibodies, and panagglutination with the rest of the cells, making it impossible to obtain fully compatible blood, even from close relatives. The initial study was conducted at the Basque Centre of Human Tissue and Transfusions in Galdakao-Usansolo Hospital, and samples were sent to the Blood and Tissue Bank (BTB) of Barcelona for confirmation. The BTB of Barcelona detected the aforementioned anti-K and anti-Fy (b) alloantibodies, in addition to anti-JMH alloantibodies. The patient was John Milton Hagen (JMH) antigen-negative. Compatibility tests were performed using the LISS-Coombs and LISS-Coombs papain method (DG Gel[®] System; Diagnostic Grifols SA, Barcelona, Spain). Other anti-JMH studies performed were: polyethylene glycol alloadsorption and

challenging the patient's plasma with red blood cells. Only 5 bags of 90–95% compatible blood were found, and there was therefore a risk of more or less severe haemolysis, depending on the amount of blood needed to be transfused. The blood bank recommended only transfusing the bags in a life-threatening emergency. Lab tests showed: Hb 13.2; ferritin 23; transferrin saturation 26.6; vitamin B12, folic acid, iron ions and transferrin were normal. After discussing the situation, the Surgery, Haematology and Anaesthesiology departments agree to start treatment with erythropoietin, followed by IV iron, oral vitamin B12 and folate. Due to the difficulty in obtaining compatible allogeneic blood, the patient was enrolled in a preoperative autologous donation programme with the aim of obtaining 3 bags of autologous blood, normalising ferraemia, and maintaining Hb at minimum 12 g/dl immediately before surgery. The patient was informed and specific consent was obtained.

On the day Sx, about 1 month after the date initially scheduled, the patient arrived at the operating room with Hb 11.5 g/dl and normal ferretin levels; 3 bags of autologous and 4 bags of allogeneic blood were available. Given the high risk of transfusion-induced haemolytic reaction, the blood bank recommended only using the allogenic blood in case of extreme emergency. We decided to prepare the CATS[®] blood recovery system (Continuous Autologous Transfusion System-CATS[®]; Fresenius Kabi Spain, SAU, Barcelona, Spain) should the patient present acute haemorrhage, to reinfuse salvaged blood if it was unavoidable. A peripheral venous line (20 G) had been placed when the patient was on the ward. Prior to induction, the patient was given antibiotic prophylaxis with 2 g of cefazolin, and 2 mg of midazolam were also administered. An epidural catheter (EC) was placed at the T7–T8 segment with the patient in a sitting position, the left radial artery was cannulated, and the right internal jugular vein was cannulated using ultrasound guidance. An additional peripheral vein (14 G) was also cannulated.

Anaesthesia was induced with 150 µg fentanyl and propofol using a TCI pump, followed later by 70 mg rocuronium. The patient was also given 4 mg hydrocortisone. After induction, orotracheal intubation was performed with size 37 left-sided Robertshaw double lumen tube using video laryngoscopy, and placement was checked with a fiberoptic bronchoscope. Anaesthesia was maintained with continuous TCI of propofol, remifentanyl and rocuronium. EtCO₂, SpO₂, ECG, urine output, temperature, cardiac output and neuromuscular relaxation were monitored, and a nasogastric tube was inserted. Surgery was started with the patient in the prone position. Right thoracoscopy was performed to immobilise the oesophagus after one-lung ventilation

Download English Version:

<https://daneshyari.com/en/article/8622192>

Download Persian Version:

<https://daneshyari.com/article/8622192>

[Daneshyari.com](https://daneshyari.com)