ANAESTHESIA FOR CESAREAN DELIVERY IN A PATIENT WITH ALCAPA SYNDROME

A. Panzina¹, I. Aguiar¹, R. Pontes¹, A. Milheiro², M. Paiva³

¹Medical Trainee of Anesthesiology; ²Medical Assistant of Anesthesiology; ³Graduate Medical Assistant of Anesthesiology
Centro Hospitalar de Vila Nova de Gaia / Espinho, E.P.E, Portugal

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INTRODUCTION

Anomalous left coronary artery arising from the pulmonary artery (ALCAPA) is a rare congenital cardiac disease that can cause myocardial infarction, heart failure and even death. Only few untreated patients survive until adult age.

Reports of ALCAPA syndrome in pregnancy are scarce. We describe a successful anaesthetic management of a pregnant woman with a rare high-risk cardiovascular disorder.

DISCUSSION

Pregnancy and delivery are associated with several cardiocirculatory changes that can significantly impact underlying cardiac disease.

A team of providers (cardiologist, cardiothoracic surgeon, obstetrician and anaesthesiologist) should develop an **individualized management plan**, for pregnancy, labour and puerperium, in order to minimize the risks to the mother and the fetus.

CASE REPORT

Medical History

ALCAPA syndrome diagnosed at 28 yo following a sudden cardiac arrest

Patient

Female
29 yo
G1D0
81Kg 1.63m

Surgical History

Surgical repair of cardiac malformation and placement of an implantable cardioverter defibrillator (ICD)

Pregnancy Evolution

two episodes of PVT/VF, one self-limited and other requiring defibrillation.

Laboratory Studies: dilutional anemia.

Third trimester echocardiogram: enlargement of left chambers, moderate mitral insufficiency and interventricular septum hypokinesis. Ejection fraction of 53%.

Surgical Procedure and Anesthetic Management: elective cesarean delivery at 38-week gestation.

Monitoring:

pulse oximetry, invasive blood pressure, 5-lead ECG and urine output

Slowly titrated administration:

75mg Ropivacaine
0,01mg Sufentanil

Transference to PACU for 24h surveillance

Epidural:
single try median approach technique at L3-L4

Hypotensive episode: crystalloid + 100mcg phenylephrine

Cesarean delivery
Female, 3700g, Apgar Score: 10/10/10 at 1/5/10 minutes

During the procedure no electrocautery was used, therefore it wasn't necessary to disable the ICD, however the ICD technician was present and the self-adhesive defibrillation pads were placed. The puerperium was uneventful.

LEARNING POINTS

Anaesthetic management of pregnant women with ALCAPA syndrome is challenging. There is little information in the literature regarding this specific syndrome, its association with pregnancy and the subsequent anaesthetic approach.

Peripartum obstetric and cardiac complications in pregnant woman with ALCAPA syndrome may require urgent intervention.

Interdisciplinary communication and preparation are critically important for success of both surgical and anaesthetic procedures.

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