**PO18 Acetazolamide induced metabolic acidosis in the intraoperative setting – a case report**

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Background

Acetazolamide is a carbonic anhydrase inhibitor drug that can be used in combination therapy with antiepileptic medications in children and adults as an adjuvant in antiseizure activity.

It causes an accumulation of carbonic acid by preventing its breakdown, hence lowering blood pH. As a diuretc, the mechanism affects the proximal tubule of the kidney inhibiting bicarbonate reabsorption, which can lead to metabolic acidosis.

Case Report

A 19-year-old patient diagnosed with juvenile absence epilepsy at 11 years old that was controlled with sodium valproate and acetazolamide presented to the ER with a history of pain and right lower limb oedema with three days of evolution. She had history of recent SARS-CoV-2 infection and was taking oral contraceptive.

A lower limb ultrasound was performed revealing superficial femoral and common iliac artery thrombosis. On angio CT scan an iliofemoropopliteal thrombosis was diagnosed.

The patient was admited for implantation of an inferior vena cava filter, a surgical thrombus aspiration and catheter-directed thrombolysis. On arrival to the OR she was conscient and orientated, with no respiratory insufficiency and hemodynamically stable. A general balanced anesthesia was performed. After intubation, the Et CO2 was 24. The radial artery was catheterized and a blood gas analysis at FiO2 45% revealed a pH 7,30 pO2 349 mmHg pCO2 27,6 mmHg HCO3 13,7 mmol/L and lactacte 0,4 mmol/L. No complications were recorded during surgery with the patient being extubated prior to the transference to an intermediate care unit.

The hypothesis of pulmonary thromboembolism was suspected so a pulmonary angio CT was performed showing a central bilateral pulmonary embolism.The admission at intensive care unit was eventless. A diagnosis of metabolic acidosis secondary to acetazolamide was made.

Discussion

The present case enhances the role of chronic medication in intra-operative anesthesia care and monitoring. Knowledge of drugs mechanisms of action and associated implications should be one the priorities of the anesthesiologist.

References

Reiss WG, Oles KS. Acetazolamide in the treatment of seizures. Ann Pharmacother. 1996

