CASE REPORT: SPINAL EPIDURAL HAEMATOMA AS A COMPLICATION OF REMOVING A THORACIC EPIDURAL CATHETER.

E. Burchés¹, M. Chasco¹, O. Varela¹, I. M. Barrio¹, A. Ruiz¹

¹ Department of Anaesthesiology. Hospital General Universitario Gregorio Marañón (Madrid, Spain)

BACKGROUND:

The incidence of spinal epidural haematoma (SEDH) is **an uncommon but severe complication** of central neuroaxial blocks. SEDH are described as most commonly occurring in the setting of **epidural anaesthesia (EA)**, mostly if an epidural **catheter is inserted**. The incidence of SEDH after EA is difficult to estimate because of its rarity. To reduce its incidence we must consider different factors such as coagulation lab tests, anticoagulation and antiplatelet drugs or the moment of removing the epidural catheter.

CASE REPORT:

- A 41-year-old woman, ASA II, with a diagnose of a metastatic neuroendocrine intestinal tumor, is programmed for surgery of **tumor resection**. Medical history of hypothyroidism, arterial hypertension and carcinoid syndrom.
- Laboratory test, including platelet count, coagulation test and renal function were within **normal range**. She did not receive antihaemostatic drugs.
- Before surgery, an **epidural catheter** is atraumatically placed between D10-D11 space without **any incidence**. Surgery is uneventful.
- 24 hours after surgery, the catheter is removed due to suspect **intradural migration**. Removal of the catheter is done respecting the **safe intervals of the thromboprophylaxis** therapy. Neurological symptoms disappear after removing the catheter.
- 24 hours after catheter removal, the patient presents paresthesias and **hypoesthesia from D10 level, without motor block**.
- A magnetic resonance imaging (MRI)₁ is performed and an **haematoma compressing the spinal cord** expanded from D8 to D10 is observed.
- An urgent **drainage and laminectomy** is carried out within the first 5h since the beginning of the symptoms. She gradually recovered from neurological symptoms.
- After one month of surgery, there is only mild paresthesia in the right lower extremity.

Figure 1: MRI August 12th: Acute posterior epidural spinal haematoma from T8 to T10 with secondary spinal cord compression and edema.

Figure 2: MRI november 8th: There is not epidural haematoma. There is residual cavitation in the dorsal spinal cord as an evolutionary process of compressive myelopathy.

DISCUSSION:

- The risk factors associated with SEDH include **advanced age, female gender, traumatic attempts** at puncture for neuraxial anesthesia, **vascular malformations, anticoagulation therapy and arterial hypertension**. Our patient only present arterial hypertension and female sex. The intervals of thromboprophylaxis therapy were respected. The carcinoid syndrom can not be considered as a risk factor of SEDH because it is not related to an anticoagulant status.
- Despite performing the epidural puncture and removal of the catheter according to the clinical guidelines a SEDH appeared.
- Our patient presents **posterior cord syndrome** as a result of spinal cord posterior compression. These symptoms could have progressed to paralysis if an early diagnosis would not have done.
- **MRI is the preferred** diagnostic method and early neurosurgical consultation is imperative in order to decide on management.
- If a SEDH is detected, **urgent surgical management** is mandatory, within 12h after the appearance of neurological symptoms.

REFERENCES:

1. M. Lagerkranser. Neuraxial blocks and spinal haematoma: Reiew of 166 case reports published 1994-2005. Scandinavian Journal of Pain 2017; 15: 118-129
2. Pumberger et al. An Analysis of the Safety of Epidural and Spinal Neuraxial Anesthesia in More Than 100,000 Consecutive Major Lower Extremity Joint Replacements. Reg Anesth Pain Med. 2013;38: 515-519