Spontaneous spinal epidural hematoma after labour with epidural anaesthesia, a case report

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Background: Spinal epidural hematomas are extremely rare, 0,1/100,000 including spontaneous and those associated with anaesthetic procedures¹. During pregnancy the pressure in the abdomen and venous plexus increases, making them more susceptible to rupture and bleeding².

Case report: We report a 39 y.o. full term secundipara woman with medical history of hypothyroidism and chronic neck pain. She received a L3-L4 lumbar epidural for labour analgesia according to our department protocol without any incidents and 11h later went to c-section for cephalopelvic disproportion, with mild bleeding requiring oxytocin 10UI and methylergometrine 100 mcg, being discharged from PACU 6h after surgery. 27 hours after the initial setting of the epidural catheter the patient developed acute intense posterior neck pain followed respiratory distress and progressive tetraparesis. The patient was transferred to the ICU and intubated due to respiratory arrest. Brain CT-scan was normal and the patient was awakened, her consciousness was intact but she had left sided hemiparesis. Brain and cervical MRI showed an anterior epidural hematoma in C5-C6 and decompression surgery was performed immediately. After the surgery the patient was transferred to the neurology unit for recovery and discharged home with a mild 4/5 left sided hemiparesis which still remains to date and chronic neck pain requiring amitriptyline, escitalopram and NSAIDs.

Discussion: Spontaneous spinal epidural hematomas are extremely rare and there are only a handful of cases associated with pregnancy³. After reviewing the literature, we couldn't find any relationship to the initially sited epidural catheter, and the most probable cause was an arteriovenous malformation presenting with typical symptoms corresponding to the level of the hematoma in the spinal column. A fast diagnosis and management allowed the patient to recover fast and have minimal neurological damage.

References

1. Hirotaka I et al, A Case Report with a Literature Review of 50 Cases. Intern Med 2014;53: 57-62
2. Bose S et al, Spontaneous spinal epidural hematoma. BJA 2007; 99:855-7
3. Puah KL et al. Spontaneous cervical spine epidural hematoma in the postpartum period. Spine 2012;37:408-10

Learning points: Not all haematomas are related to anaesthetic techniques, even if the two events occur within a short time frame. Pregnancy is a characteristic physiological state predisposing to a wide range of pathologies, such as epidural hematomas, and anaesthesiologist must be trained to promptly identify and manage them.