

DEXMEDETOMIDINE FOR HIGH RISK NEUROSURGICAL PATIENT, AN ALTERNATIVE TECHNIQUE FOR REDUCING THE RISK OF GENERAL ANAESTHESIA

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AIM: We described successful management with dexmedetomidine combined with local anesthesia and a scalp block for a patient with superior vena cava syndrome during a neurosurgical procedure for dura mater reconstruction(3).

METHODS: Case report of the patient, aged 48, ASA classification IV (2), with disseminated malignant disease had surgery for brain metastasis (1/2016). Previously, a radical mastectomy of the right breast had been performed (2012). The patient had metastases in the lungs, liver and left adrenal gland, and mediastinal lymph nodes. One month after neurosurgery, she was again admitted to hospital due to the development of superior vena cava syndrome with distended veins on the front of the chest wall, and an edematous neck, right arm and face. She did not tolerate a lying position. A pseudomeningocele developed in the location of the previous neurosurgery, and surgery was required to perform reconstruction of the dura. The thoracic CT scan showed a thrombosis at the confluence of the right and left brachiocephalic veins due to a tumorous infiltration, and thrombosis of both subclavian veins, and the right internal jugular vein. Tumorous masses in the superior lobe of the left lung had infiltrated the mediastinum to the aortic arch, left arteria pulmonalis and the lobar bronchi for the superior lobe of the left lung .

RESULTS: Procedural sedation with dexmedetomidine was performed, together with a scalp block, standard monitoring and bispectral index (BIS). During surgery the patient was breathing spontaneously with a nasal oxygen catheter. After the procedure the patient was transferred to intensive care unit hemodynamically stable and awake.

CONCLUSION: Superior vena cava syndrome(SVCS) presents great problems during general anesthesia, the major concerns for patients with SVCS undergoing general anesthesia are the possibility of complete airway obstruction and diminished venous return to the heart resulting in cardiovascular collapse (1).

This case shows that the analgosedation with dexmedetomidine together with scalp block in an ASA IV patient with superior vena cava syndrome diminished the possibility of complications due to general anesthesia.

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