44507 - ANESTHETIC MANAGEMENT OF A PARTURIENT WITH METASTATIC CARCINOID DISEASE

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Purpose:

We present the anesthetic management of a parturient with metastatic pancreatic carcinoid tumor. This included a multidisciplinary approach, invasive monitoring, epidural labour analgesia and ready access to drugs to manage a potential carcinoid syndrome.

Clinical Features:

The patient has given consent to the publication of this case report.

A primiparus 29-yr-old woman with a singleton fetus at 32 weeks gestation was referred to the Anesthesia Preadmission Clinic. She had a non-surgical primary pancreatic, non-secreting carcinoid tumor with metastases to the liver. Examination revealed a well-looking woman with normal airway, cardiovascular and respiratory examinations. Other co-morbidities included well-controlled gestational diabetes. Her pregnancy had been uncomplicated to date.

Obstetrics, oncology, endocrinology and clinical pharmacology were involved in the care of the patient. Serial ultrasounds of her liver, liver function tests and tumor marker chromogranin A were being regularly followed. The potential use of octreotide in the event of a carcinoid crisis had been discussed. An induction was planned at 38 weeks gestation.

Epidural analgesia for labour was recommended to limit catecholamine release that could induce a carcinoid crisis. An arterial line was recommended for direct monitoring of blood pressure.

Octreotide and the protocol for administration were made available in the delivery room.

At the time of induction the liver function tests and abdominal ultrasounds had remained stable.

A radial arterial line followed by a lumbar epidural was placed uneventfully prior to induction. Epidural analgesia was established with 0.1% ropivacaine and fentanyl 2 µg/mL. Use of epinephrine and ephedrine were avoided.

Induction was achieved with artificial rupture of membranes, followed by oxytocin augmentation. The patient remained comfortable and her heart rate and blood pressure remained stable. The fetal heart rate was reassuring. The patient had a spontaneous vaginal delivery of a live infant. The patient remained stable post partum.

Conclusion:

Metastatic carcinoid tumors may release vasoactive substances causing carcinoid syndrome (bronchoconstriction, hemodynamic instability, arrhythmias, flushing, hyperglycemia), which may be life-threatening.¹ Our goal in anesthetic management was to prevent a carcinoid syndrome with adequate epidural analgesia so as to avoid the stress-induced release of catecholamines during labor.^{2,3} Invasive blood pressure monitoring facilitated titration of epidural blockade and avoidance of hypotension and reflex sympathetic nervous stimulation. If the patient began to experience symptoms of carcinoid syndrome during the peripartum period,

octreotide, labetolol and nitroglycerin were available. The multidisciplinary approach was paramount to the success of this case.

References:

- 1 Int Anesthesiol Clin 2000 38: 31-67
- 2 Endocrinol Invest 2004 27(5): 465-70
- 3 Mayo Clin Proc 2002 Mar: 77(3): 297-8