

A Case report of Placental Abruptio and Takotsubo Cardiomyopathy After Epidermoid Tumor Resection

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INTRODUCTION

- Physiologic changes in pregnancy have been implicated in brain tumor progression
- Takotsubo cardiomyopathy and placental abruptio are potential complications of non-obstetric surgery in the parturient
- Consider preemptive cesarean section in high-risk surgeries

CASE PRESENTATION

A 27-year-old female G2P1001, at gestational age 27.4 weeks, presented for a two-stage craniotomy with tumor resection due to rapid progression of neurologic symptoms.

Day 1: patient positioning in right lateral decubitus→ compression of the inferior vena cava→ hyperdynamic state with cardiac output over 10 L/min → pulmonary edema→ hypoxemic respiratory failure → reintubation

Day 2: Hyperdynamic to hypodynamic state → cardiac output less than 4 L/min→ high frequency low amplitude contractions on tocometry→ increased remifentanyl requirement

Post-operative day 2: fetal bradycardia→ level one cesarean section → diagnosis of placental abruptio

Transthoracic echocardiography was performed which suggested the diagnosis of Takotsubo cardiomyopathy.

DISCUSSION

The confluence of pathologies created a funnel effect that resulted in a placental abruptio.

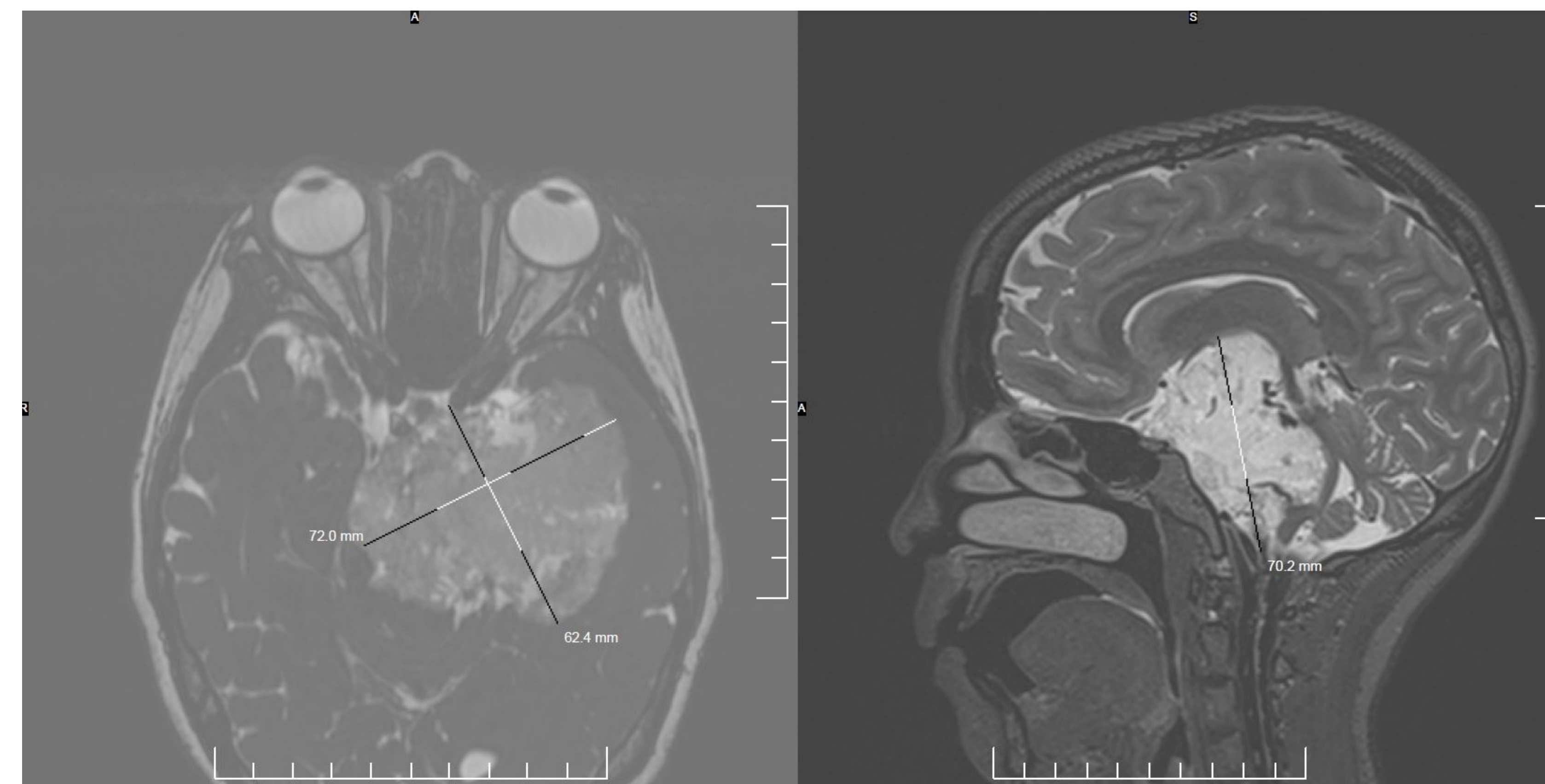
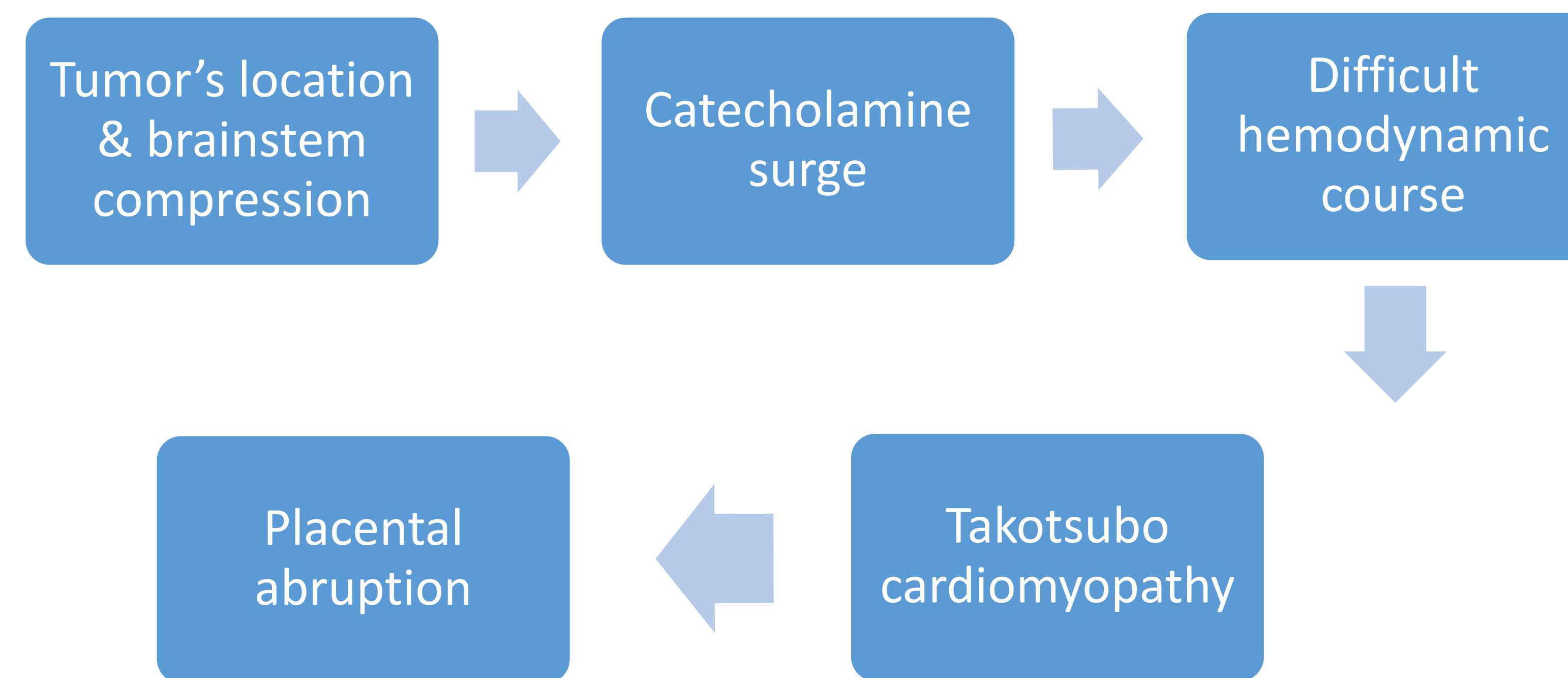


Figure 1. Magnetic resonance imaging of the brain tumor showing brainstem compression.

CONCLUSIONS

- Cardiac arrest of neonate, takotsubo cardiomyopathy, and placental abruptio could have possibly been prevented by cesarean section prior to neurological surgery
- Volatile anesthetics may have a significant role in uterine relaxation
- Importance of continued monitoring of viable fetus following high risk surgery
- Consider pulmonary artery catheter in surgeries with parturient where large hemodynamic shifts are expected
- Discussion among patient, obstetrician, surgeon, and anesthesiologist should focus of risk benefit ratio for early delivery

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