The Fetal Medicine Foundation
20th World Congress in Fetal Medicine

HOSPITAL DE LA SANTA CREU I SANT PAU
FUNDACIÓ DE GESTIÓ SANITÀRIA
UNIVERSITAT AUTÒNOMA DE BARCELONA

INTRACRANIAL MASS OF LATE ONSET: A CASE REPORT

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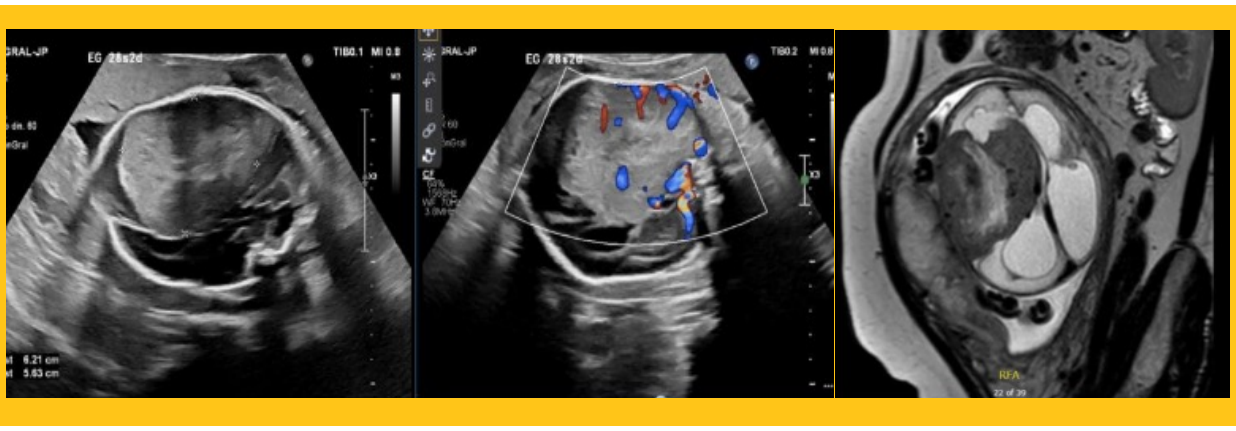
A 48-year-old G3P2 was referred to our center at 28+2 weeks with a fetal brain mass and hydrocephalys at her reference center. The pregnancy was uneventful until diagnosis.

At our institution, ultrasound examination showed a solid complex brain formation with irregular margins and hypoechoic areas of supratentorial location in the left hemisphere of 62x56mm with shit of the midline structures and hydrocephalus of both lateral ventricles and IV ventricle. Color doppler showed abundant diffuse vascularization. The fetal weight estimated was 1640g (>p99) and the head circumference was 299mm (>p99).

It was proposed to complete a study with MRI and screening for alloimmune thrombocytopenia as well as an amniocentesis for genetic study.
The MRI confirmed a large left hemispheric supratentorial mass of 72x64x83mm, of heterogeneous aspect and with abundant blood inside. Peripheral and intratumoral vascular prominence. Midline deviated to the right 15mm conditioning a homolateral subfalciana and transtentorial herniation. Severe supra- and infratentorial ventriculomegaly. Areas of acute parenchymal infarction are visualized at the frontal level and areas of cystic appearance suggestive of old infarction.



The main diagnostic options included primary brain tumor type: teratoma, or tumor of glial/neuroglial lineage. Less likely options: a vascular malformation with signs of bleeding and an associated large hematoma.
The results of microarrays and the platelet incompatibility study were normal.
The poor fetal prognosis was explained to the couple and they decided to legal termination of pregnancy.

Autopsy reports a 2060g fetus, macrocephaly with solid whitish intracranial tumor attached to dura mater that appears to be dependent on the neural tissue of the left hemisphere. Right hemisphere intact but collapsed. No evidence of other malformations. Hystopathology demonstrated **difus infantile hemispheric glioma.**

Conclusions:

Intracranial masses of late onset during gestation are a **very rare entity** (0.34/1,000,000 live births) and because of their sudden onset they have a very important impact on the couple. Most appear in the late second and **third trimester** and have a **poor prognosis** with a survival rate of approximately 28%.

The most common reported tumors diagnosed in-utero are **teratomas** and **astrocytomas**. Teratomas are heterogeneous masses, with cystic areas and rapid growth with necrotic areas inside, as well as hemorrhagic areas, although these are more frequent in gliomas. Gliomas (especially astrocytomas) present slower growth, are more vascularized and, characteristically, present intratumoral hemorrhages.
The differential diagnosis should also be made with intracranial hemorrhagic lesions, vascular malformations and destructive lesions of infectious or autoimmune cause.
Although it is true that a diagnosis of certainty cannot be made until the postnatal period by histological study, the attempt at a prenatal presumptive diagnosis by ultrasound and MRI is important for family counselling.