

# Interorbital frontal encephalocele: role of 2D/3D imaging

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## 1) INTRODUCTION

Midline fetal facial masses are not always facial in origin. Some arise from intracranial structures and may have major diagnostic and prognostic implications. Demonstrating intracranial continuity is therefore essential.

## 2) CASE PRESENTATION

A 29-year-old pregnant woman was referred at 21+4 weeks due to suspicion of a fetal facial mass. Ultrasound showed a 20 mm skin-covered interorbital lesion. Assessment of the anterior cranial vault demonstrated an 8 mm defect between the frontal and nasal bones, with herniation of intracranial structures.

## 3) 2D/3D IMAGING FINDINGS

Mid-sagittal and transverse views showed continuity with intracranial contents, supporting the diagnosis of frontal encephalocele. 3D reconstruction clearly depicted the bony defect, directly visualizing the cranial opening between the orbits and the pathway of herniation.

## 4) MRI / GENETICS / OUTCOME

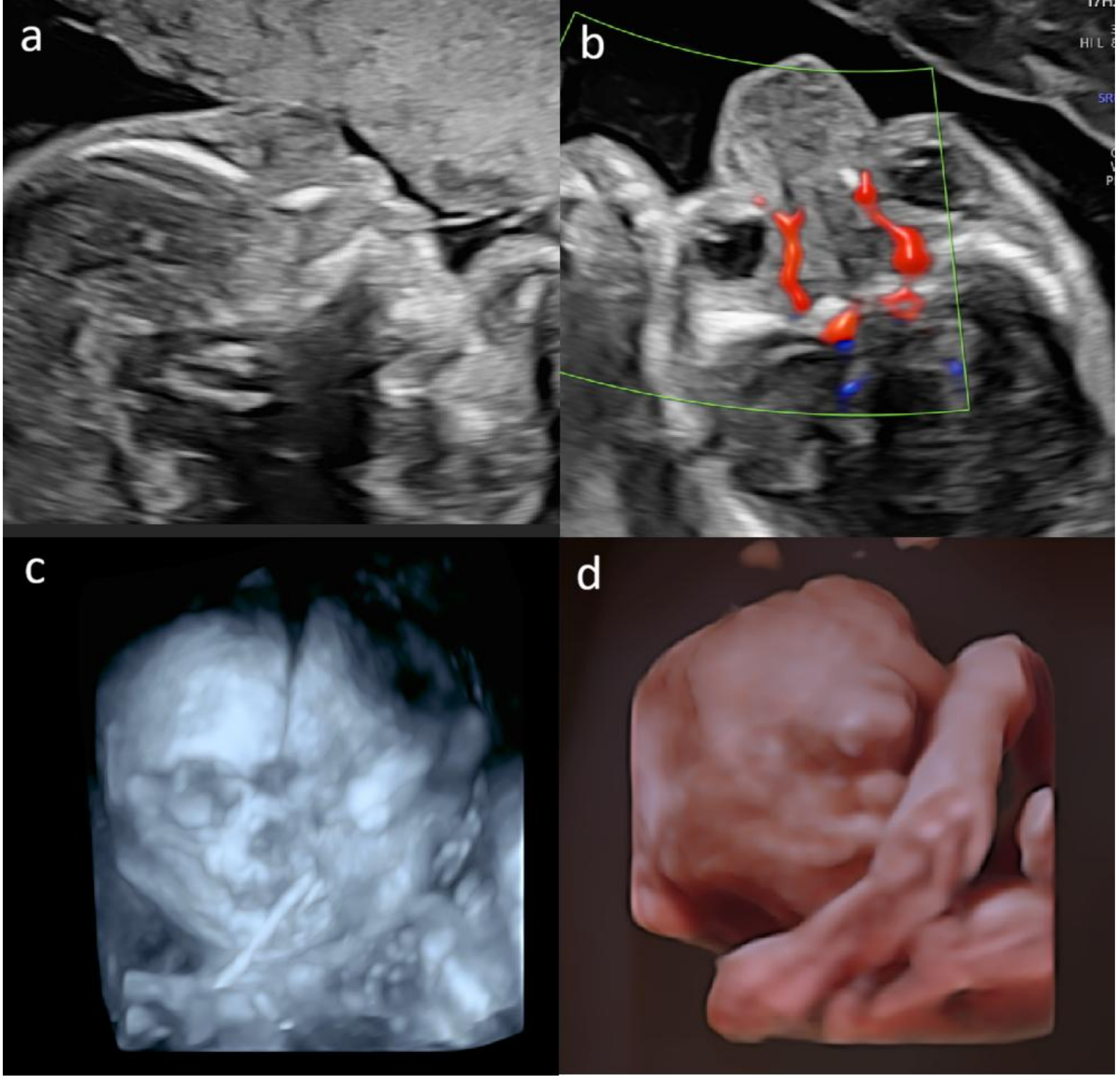
Fetal MRI confirmed a frontobasal defect with herniated brain tissue. Genetic testing was normal. The pregnancy was complicated by chorioamnionitis at 24 weeks, resulting in neonatal death. Postmortem examination confirmed a supranasal frontal encephalocele with herniation of frontobasal brain parenchyma and no additional structural anomalies.

## 5) CONCLUSION

When an interorbital fetal mass is detected, always assess the anterior cranial vault and search for intracranial continuity. 3D imaging is particularly useful for demonstrating the bony defect.

## KEY MESSAGE

**When a fetal interorbital mass is detected, always assess the anterior cranial vault and look for intracranial continuity. 3D imaging is especially useful for depicting the bony defect.**



- a)** Sagittal view showing cranial defect and herniation
- b)** Transverse view of interorbital mass
- c)** 3D bone rendering of frontal defect
- d)** Surface rendering of facial mass

### References:

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