

EP18.07 Fetal head molding diagnosis using 3D transperineal ultrasound

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Fetal head molding during labor results from overlapping cranial bones, usually assessed clinically in a subjective way. 3D transperineal ultrasound offers an objective method to evaluate this phenomenon.

A 35-year-old primigravida at term underwent 2D and 3D transperineal ultrasound during the second stage of labor. Acquisitions included midsagittal and axial 2D planes, and 3D surface and multiplanar reconstructions.

2D ultrasound confirmed molding with the occipital bone sliding under the parietals. 3D surface render clearly demonstrated the right parietal bone overriding both the occipital and left parietal bones. **Multiplanar reconstructions showed misalignment between the brain midline and the parietal overlap line.**

Multiplanar reconstructions revealed that the cerebral midline and the parietal overlap line were not perfectly aligned, indicating asymmetric molding. In this case, the brain midline extended from 1 to 7 o'clock, while the parietal overlap line was oriented from 11 to 5 o'clock. This slight misalignment supports earlier reports that molding can be more pronounced anteriorly than posteriorly, resulting in deviation from the true sagittal midline. The patient delivered spontaneously a healthy infant after 140 minutes of active pushing.

3D transperineal ultrasound provides clear and objective visualization of cranial molding. This approach may improve understanding of its dynamics and clinical significance.

