

P174. Advance 3D Ultrasound techniques in detection of cleft palate from 12-18th week of pregnancy

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Objective:

Analysis of diagnostic value of 3D multislice ultrasound and 3D Omniview technique in analysis of fetal face and hard palate and detection of cleft palate from 12 -18th week of pregnancy.

Methods:

In this study 250 patients with normal pregnancy were included. After obtained midsagittal scan in 3D mode and switching to 3D multislice or Omniview technique fetal face morphology was analysed in 3D multislice oblique mode and Omniview mode. Utilizing five parallel planes in which the central plane was set to visualize retronasal triangle, fetal face and hard palate were presented in this technique. In 6 patients with cleft palate obtained volumes of facial midsagittal scan were analyzed in 3D multislice mode to test the diagnostic value of this technique.

Results:

In 250 patients with normal pregnancy in 3D multislice oblique technique or Omniview mode, retronasal triangle and hard palate were visualized in minimum three planes and normal morphology of palate was confirmed. In 6 patients defect in retronasal triangle morphology and palate was confirmed. One patient at 18 week of pregnancy, besides facial cleft had multiple anomalies and triploidy. Two patients at 15 and 16 weeks had holoprosencephaly and facial cleft associated with trisomy 13. In two patients facial clefts were suspected at 12 and confirmed at 17 weeks with normal karyotype. The remaining one case was twin monochorionic pregnancy where facial cleft was detected at 16 weeks and the remaining twin had normal morphology. Fetal karyotype was also normal.

Conclusion:

Analysis of fetal facial morphology and hard palate in 3D multislice oblique mode or Omniview technique, after obtaining 3D midsagittal scan, can be very useful diagnostic procedure in detection of facial clefts, either isolated or associated with other fetal anomalies and genetic malformations.

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