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三维超声观察胎儿胼胝体及小脑蚓部正中矢状面

Three-dimensional ultrasound visualization for fetal corpus callosum and cerebellar vermis midline image

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中文关键词：胎儿 脑 胼胝体 小脑蚓部 超声检查,产前

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作者	单位	E-mail
杨杰	河南省人民医院超声科, 河南 郑州 450003	yjflyfly2002@126.com
袁建军	河南省人民医院超声科, 河南 郑州 450003	
屈献忠	河南省人民医院超声科, 河南 郑州 450003	

中文摘要:

目的 探讨以横断面为初始平面的三维超声显示胎儿胼胝体及小脑蚓部正中矢状面的价值。方法 随机选取在本院接受产前超声检查的孕妇60名,胎儿超声系统检查无异常。以标准透明隔小脑半球平面为初始平面,采集三维容积数据库并存储,用软件分析容积数据,并采集同一胎儿标准二维正中矢状面。分析三维超声第三平面显示胎儿胼胝体及小脑蚓部的显示率,测量该平面胎儿胼胝体的前后径及小脑蚓部的面积,并与同一胎儿二维正中矢状面测量值进行比较。结果 采集60胎胎儿的三维容积数据库及二维图像。三维图像第三平面胼胝体显示率为95.00%(57/60),小脑蚓部显示率为95.00%(57/60);三维第三平面测量的胼胝体前后径及小脑蚓部面积与二维正中矢状面所测量的径线差异无统计学意义(P均>0.05)。结论 三维超声有助于显示胎儿胼胝体及小脑蚓部的正中矢状面,对胎儿胼胝体及小脑蚓部的生长监测具有临床价值。

英文摘要:

Objective To analyze the clinical value of three-dimensional ultrasound visualization for fetal corpus callosum and cerebellar vermis midline image acquired from axial plane. **Methods** Totally 60 consecutive healthy fetuses underwent routine prenatal ultrasonography. The midline image of fetal corpus callosum and cerebellar vermis were reconstructed. Axial plane from three-dimensional ultrasound and medline image of the same fetus simultaneously from two-dimensional ultrasound were acquired. Visualization rates of corpus callosum were analyzed, and cerebellar vermis were reconstructed from three-dimensional ultrasound. Antero-posterior diameter (APD) of the corpus callosum and area of the cerebellar vermis were compared between three-dimensional ultrasound image and two-dimensional ultrasound image. **Results** Totally 60 three-dimensional ultrasound data were acquired, the visualization rates of corpus callosum and cerebellar vermis were both 95.00% (57/60). Measurements of corpus callosum and cerebellar vermis acquired by three-dimensional ultr\asound and two-dimensional ultrasound had no statistical difference (all P>0.05). **Conlusion** Three-dimensional ultrasound can improve the visualization rates of fetal corpus callosum and cerebellar vermis midline image, which shows high clinical value.

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