

- in a stillborn. [J]. Fetal pediater pathol, 2012, 31(2): 43-49.
- [7] 张壹, 张晓媛, 艾迪, 等. 产前超声诊断胎儿卵圆孔早闭 1 例 [J]. 中国医学影像学杂志, 2021, 29(9): 928-929.
- [8] 艾冰, 李群芳, 黄建国. 胎儿卵圆孔早闭超声表现 1 例 [J]. 世界最新医学信息文摘, 2016, 16(46): 122-123.
- [9] 陈巧琼, 丁尚伟, 谢玉环, 等. 胎儿卵圆孔功能性早闭超声检查一例 [J]. 中国妇产科临床杂志, 2019, 20(2): 178-179.
- [10] JU SHUANG, DONG SHAN, SONG LI, et al. Functional premature closure of the fetal foramen ovale: A case report [J]. Int J Gynaecol Obstet, 2021, 154(3): 572-573.
- [11] 田玉翠, 刘妍, 王红梅, 等. 胎儿卵圆孔早闭/血流受限 4 例并文献复习 [J]. 医学综述, 2018, 24(4): 820-826.
- [12] DONOFRIO MT. Images in cardiovascular medicine. Premature closure of the foramen ovale and ductus arteriosus in a fetus with transposition of the great arteries [J]. Circulation, 2002, 105(11): e65-e66.
- [13] IWAMOTO Y, TAMAI A, KAWASAKI H, et al. Late clinical manifestations of mitral valve disease and severe pulmonary hypertension in a patient diagnosed with premature closure of foramen ovale during fetal life [J]. World J Pediatr, 2011, 7(2): 182-184.
- [14] JAIMAN S. Coronary Sinus Defect, Premature Restriction of Foramen Ovale and Cysto-Colic Peritoneal Band [J]. Fetal Pediatr Pathol, 2023, 42(2): 291-296.
- [15] TERROBA SEARA S, OULEGO ERROZ I, LOBETE PRIETO C, et al. Foramen oval restrictivo intraútero; causa de hipertensión pulmonar neonatal [Intrauterine restrictive foramen ovale: cause of neonatal pulmonary hypertension] [J]. Arch Argent Pediatr, 2019, 117(6): e626-e630.
- [16] KATHARINA STOCK, MIRIAM MICHEL, ELISABETH SCHERMER, et al. Presumed prenatal closure of foramen ovale and persistent pulmonary hypertension of the newborn [J]. Cardiology in the Young, 2020, 30(2): 281-283.
- [17] TULZER A, ARZT W, PRANDSTETTER C, et al. Atrial septum stenting in a foetus with hypoplastic left heart syndrome and restrictive foramen ovale: an alternative to emergency atrioseptectomy in the newborn—a case report [J]. Eur Heart J Case Rep, 2020, 4(1): 1-4.

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数字医疗赋能生殖/围产医学

黄荷凤 (浙江大学医学院)



生殖医学家、中国科学院院士黄荷凤教授为我们带来了“数字医疗赋能生殖/围产医学”的前沿报道。黄院士团队利用深度学习技术识别染色体核型, 研发的样机检测准确率超过95%; 开发基于 cfDNA 基因逆卷积分析技术的 NIPT2.0 版, 首次对显性单基因病进行产前筛查; 建构基于家系遗传背景的多基因病风险评估模型, 实现了国内首例 PGT-P (preimplantation genetic testing) 在慢病胚胎期的防控; 研发“5G+AI+云生信+远程超声”一站式会诊平台, 实现超快速的基因数据传输与分析诊断。

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