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Obstetrics Grand Rounds: Updates From the RAFT Trial – Fetal Renal Agenesis and Fetal Renal Failure

References

Arora V, Khan S, El-Hattab AW, Dua Puri R, Rocha ME, et al. Biallelic Pathogenic *GFRA1* Variants Cause Autosomal Recessive Bilateral Renal Agenesis. J Am Soc Nephrol. 2021 Jan;32(1):223-228. doi: 10.1681/ASN.2020040478. Epub 2020 Oct 5. PMID: 33020172; PMCID: PMC7894660.

Committee on Genetics and the Society for Maternal-Fetal Medicine. Committee Opinion No.682: Microarrays and Next-Generation Sequencing Technology: The Use of Advanced Genetic Diagnostic Tools in Obstetrics and Gynecology. Obstet Gynecol. 2016 Dec;128(6):e262-e268. doi: 10.1097/AOG.0000000000001817. PMID: 27875474.

Deans ZC, Salmon LB, Choy KW, Wert G, Dong Z, et al. Global Recommendations for the Use of Diagnostic Genomic Sequencing in the Prenatal Setting on Behalf of the ESHG and ISPD. Prenat Diagn. 2026 Oct;46(11):1683-1702. doi: 10.1002/pd.70248. Epub 2026 Sep 15. PMID: 42744616; PMCID: PMC13659256.

De Tomasi L, David P, Humbert C, Silbermann F, Arrondel C, et al. Mutations in GREB1L Cause Bilateral Kidney Agenesis in Humans and Mice. Am J Hum Genet. 2017 Nov 2;101(5):803-814. doi: 10.1016/j.ajhg.2017.09.026. PMID: 29100091; PMCID: PMC5673669.

Majmudar A, Cohen HL. "Lying-Down" Adrenal Sign: There Are Exceptions to the Rule Among Fetuses and Neonates. J Ultrasound Med. 2017 Dec;36(12):2599-2603. doi: 10.1002/jum.14315. Epub 2017 Jul 8. PMID: 28688135.

Miller JL, Baschat AA, Rosner M, Blumenfeld YJ, Moldenhauer JS, et al. Neonatal Survival After Serial Amnioinfusions for Bilateral Renal Agenesis: The Renal Anhydramnios Fetal Therapy Trial. JAMA. 2023 Dec 5;330(21):2096-2105. doi: 10.1001/jama.2023.21153. PMID: 38051327; PMCID: PMC10698620.

Miller JL, Baschat AA, Johnson A, Blumenfeld YJ, Schenone MH, et al. Neonatal Survival After Serial Amnioinfusions for Anhydramnios Due to Fetal Kidney Failure: The RAFT Clinical Trial. JAMA. 2026 Aug 11;336(6):473-483. doi: 10.1001/jama.2026.8568. PMID: 42384373; PMCID: PMC13324935.

Munshi R, Turner K, Berrettini A, Weiss EM. Now what: navigating care of maternal/fetal dyads with bilateral renal agenesis after RAFT. A physician and parent point of view. Pediatr Nephrol. 2025 Feb;40(2):291-295. doi: 10.1007/s00467-024-06460-z. Epub 2024 Jul 23. PMID: 39043966.

Mustafa HJ, Khalil A, Johnson S, Gordijn SJ, Ganzevoort W, et al; LUTO Working Group. Fetal lower urinary tract obstruction: international Delphi consensus on management and core outcome set. Ultrasound Obstet Gynecol. 2024 Nov;64(5):635-650. doi: 10.1002/uog.27684. PMID: 38748971; PMCID: PMC11579430.

Özdemir H, Özdemir BG, Kavak SY, Şık Ş. A new sonographic marker in the diagnosis of prenatal bilateral renal agenesis, segmental anterior deviation of the aorta. Case Rep Perinat Med. 2022 Jul 12;11(1):20220001. doi: 10.1515/crpm-2022-0001. PMID: 40041229; PMCID: PMC11800677.

Rana T, Miller JL, Habli M. Serial amnioinfusions as a regenerative therapy for pulmonary hypoplasia in fetuses with intrauterine renal failure: rationale, techniques, and ethical considerations. Best Pract Res Clin Obstet Gynaecol. 2025 Dec;103:102676. doi: 10.1016/j.bpobgyn.2025.102676. Epub 2025 Nov 3. PMID: 41202737.

Shi X, Ding H, Li C, Liu L, Yu L, et al. Clinical utility of chromosomal microarray analysis and whole exome sequencing in foetuses with oligohydramnios. Ann Med. 2023 Dec;55(1):2215539. doi: 10.1080/07853890.2023.2215539. PMID: 37243546; PMCID: PMC10228326.

Verscaj CP, Velez-Bartolomei F, Bodle E, Chan K, Lyons MJ, et al. Characterization of the prenatal renal phenotype associated with 17q12, HNF1B, microdeletions. Prenat Diagn. 2024 Feb;44(2):237-246. doi: 10.1002/pd.6424. Epub 2023 Aug 26. PMID: 37632214.