Imaging and Analysis Core (Mayo Clinic Pirnie Translational Polycystic Kidney Disease Center)
Select Publications
February 2024

Caroli, A. and Kline, T.L. Abdominal Imaging in ADPKD: Beyond Total Kidney Volume. Journal of Clinical Medicine, 2023. 12(15): p. 5133.

Potretzke, T.A. et al. Clinical Implementation of an Artificial Intelligence Algorithm for Magnetic Resonance-Derived Measurement of Total Kidney Volume. in Mayo Clinic Proceedings. 2023. Elsevier.

Kline, T.L. Beyond the Protons — Sodium MR Imaging Provides New Kidney Insights. Kidney360, 2023. 4(5): p. 569.

Gregory, A.V., et al. Utility of new image-derived biomarkers for autosomal dominant polycystic kidney disease prognosis using automated instance cyst segmentation. Kidney International, 2023.

Kline, T.L. Modeling Vascular Branching Alterations in Polycystic Kidney Disease. arXiv preprint arXiv:2301.07179, 2022.

Jagtap, J.M., et al. Automated measurement of total kidney volume from 3D ultrasound images of patients affected by polycystic kidney disease and comparison to MR measurements. Abdominal Radiology, 2022. 47(7): p. 2408-2419.

Kline, T.L., et al. Automatic semantic segmentation of kidney cysts in MR images of patients affected by autosomal-dominant polycystic kidney disease. Abdominal Radiology, 2021. 46: p. 1053-1061.

Gregory, A.V., et al. Semantic instance segmentation of kidney cysts in MR images: a fully automated 3D approach developed through active learning. Journal of Digital Imaging, 2021. 34: p. 773-787.

Edwards, M.E., et al. Automated total kidney volume measurements in pre-clinical magnetic resonance imaging for resourcing imaging data, annotations, and source code. Kidney International, 2021. 99(3): p. 763-766.

Van Gastel, M.D., et al. Automatic measurement of kidney and liver volumes from MR images of patients affected by autosomal dominant polycystic kidney disease. Journal of the American Society of Nephrology: JASN, 2019. 30(8): p. 1514.

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Edwards, M.E., et al. Standardizing total kidney volume measurements for clinical trials of autosomal dominant polycystic kidney disease. Clinical Kidney Journal, 2019. 12(1): p. 71-77.
Kline, T., et al., Quantitative MRI of kidneys in renal disease. Abdom Radiol (NY) 43 (3): 629-638. 2018.

Kline, T.L., et al. Performance of an artificial multi-observer deep neural network for fully automated segmentation of polycystic kidneys. Journal of Digital Imaging, 2017. 30: p. 442-448.

Kline, T.L., et al. Image texture features predict renal function decline in patients with autosomal dominant polycystic kidney disease. Kidney International, 2017. 92(5): p. 1206-1216.

Kline, T.L., et al. Automatic total kidney volume measurement on follow-up magnetic resonance images to facilitate monitoring of autosomal dominant polycystic kidney disease progression. Nephrology Dialysis Transplantation, 2016. 31(2): p. 241-248.

Kline, T.L., et al. Utilizing magnetization transfer imaging to investigate tissue remodeling in a murine model of autosomal dominant polycystic kidney disease. Magnetic Resonance in Medicine, 2016. 75(4): p. 1466-1473.

Kline, T.L., et al. Semiautomated segmentation of polycystic kidneys in T2-weighted MR images. AJR. American Journal of Roentgenology, 2016. 207(3): p. 605.