

Contrast-Enhanced Ultrasound as a Screening and Diagnostic Tool for Kidney and Pancreas Lesions

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For patients diagnosed with von-Hippel Lindau, the requirements for surveillance and monitoring are time and labor intensive. Recent updates to the active surveillance guidelines have moved MRI imaging studies to begin even earlier, further increasing the total lifetime dose of gadolinium contrast and MRI exposure. While MRI is an excellent imaging technique with undeniable benefits, it is relatively expensive compared to other imaging modalities, time consuming and can be difficult for some patients to tolerate. In addition, the toxicity of MRI contrast agent is not clear in patients with advanced kidney disease. For these reasons, exploration of alternative imaging techniques has the potential to benefit patients with VHL. Contrast-enhanced ultrasound (CEUS) is an imaging modality that has become more widespread with an increasing number of applications. Thus far, it has not been used as a surveillance tool. VHL is an ideal patient population in which to investigate this application. In addition to kidney imaging, imaging of the pancreas should also be explored since one advantage of MRI is cross-sectional imaging that captures both the kidneys and the pancreas.