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## Experts Advocate Expanded Contrast Agent Use in Ultrasound Imaging



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Last week at the “Advances in Contrast Ultrasound” conference in Chicago, ultrasound experts advocated expanded use for ultrasound contrast agents (UCAs) to give patients broader access to low-cost, safe and reliable diagnostic imaging.

UCAs contain microscopic gas-filled bubbles injected during an ultrasound exam to enhance image resolution. These agents reflect ultrasound signals as they flow via the circulatory system to the imaged area. Thus, they improve the imaging of tumours and organ systems throughout the body, including the kidney, bowel, breast, pancreas, prostate and carotid arteries.

UCAs contain no dye and present no known risk of liver or kidney damage. No sedation to limit movement in children and claustrophobic patients is required. Unlike MRI and CT contrasts, UCAs present little risk for patients with kidney failure or allergic to iodinated contrast. When used with UCAs, ultrasound offers real-time results to facilitate speedy diagnosis and quicker access to treatment. Three agents, Definity (Lantheus Medical Imaging), Lumason (Bracco) and Optison (GE Healthcare), are currently approved in the US for use in adult and pediatric patients for heart and liver imaging.

Dr Stephanie Wilson, plenary speaker from the University of Calgary, noted that adult and pediatric patients benefit from broader UCA use to enhance diagnostic ultrasound, especially after decades of routine safe use. Pathologies can involve adjacent multiple organ systems, which one intravenous injection can highlight pathologies.

She said: “It makes absolutely no sense to ignore pathology that is clearly seen in adjacent organs simply because the FDA has only approved ultrasound contrast agents on an organ-by-organ basis, instead of providing a more clinically logical approval for whole-body imaging.”

Plenary speaker, Dr Richard G. Barr of Northeast Ohio Medical University, indicated that Many professional guidelines already advise off-label “unapproved” UCA use. Doctors already use UCA off-label and receive payer reimbursement. He added, “Doctors are permitted to use approved drugs for unapproved uses if they believe doing so is medically supported and appropriate for their patients.”

Drs Wilson and Barr both urged the FDA to work with UCA manufacturers to expand approved uses of UCAs for whole-body imaging. Dr Barr poignantly noted, “Remember that these are systemic agents. If you are looking at the liver and you happen to see something in the kidney, are you supposed to pretend you didn’t see it? ...The only practical difference between CEUS imaging of the liver -- which is approved -- and CEUS imaging of the neighbouring kidney -- which is not yet approved -- is moving the external ultrasound transducer.”

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