Editorial

Major progress in the diagnostic approach to diseases of the digestive system has been obtained by the introduction of new and refined noninvasive imaging technologies. Echo-enhanced sonography is a good example. This technique is based on the property of microbubbles to resonate and emit harmonic waves in an ultrasound field. The initial method, defined as 'second harmonic imaging', was completely limited by the inability to separate the signals obtained from the bubbles and tissue texture. Therefore this procedure was replaced by the pulse-inversion imaging technique which now gives much better picture quality. In this way echo-enhanced sonography enables the depiction of the vascularization pattern of distinct lesions in the liver and pancreas.

In a comparable way the other key imaging modalities, such as CT scan, magnetic resonance imaging, Doppler sonography, and endosonography, have also further improved in performance. In their complexity as well as selective applications, they represent a corner stone in the diagnosis and staging of benign and malignant lesions in the liver and pancreas. Although the methods do partly compete, they often need to be used in a complementary way to obtain optimal results for decision-making. An additional aspect addressed is the role of ultrasound imaging in inflammatory bowel diseases.

The aim of this issue of *Digestive Diseases* is to provide clinicians an insight into modern imaging modalities for the diagnosis, differentiation, and staging of gastrointestinal diseases.

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