

## EDITORIAL

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# What's up in abdominal radiology?

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The advent of multi-detector array CT (MDCT) has turned many things in abdominal radiology upside down. MDCT is a technique with great possibilities for several specific applications in the abdomen.

For example, the results of many well-performed clinical studies on MDCT colonography for polyp detection were presented at the ECR in Vienna and at the joint meeting of the ESGAR and SGR in Orlando. MDCT colonography achieves excellent sensitivity for the detection of polyps as small as 5 mm, but is still not reliable for the visualization of smaller polyps. Thus, the debate continues about how to proceed in patients with tiny polyps found or suspected at CT colonography. The risk of malignant transformation of such tiny polyps is virtually zero and it is probably reasonable to simply follow these patients.

The amount of ionizing radiation, which has been cited as a barrier to the use of MDCT as a colorectal cancer-screening tool, can be vastly reduced. A low dose technique, with noise-reduction algorithm using edge-preserving, yields comparable results, and it brings the amount of radiation delivered during a CT colonography scan into the range of a few chest X-rays. This may open the potential for the use of MDCT in screening, similar to current screening for lung cancer.

For pancreatic imaging the pendulum swings toward CT. The exquisite 3D-display of tumors and their relation to the vasculature is of real benefit to pancreatic surgeons. In several centers, studies have begun to examine pre-

operative chemotherapy for locally inoperable pancreatic cancer. With MDCT alone, it is not possible to assess treatment response accurately, but the combination of PET/CT to assess the biological activity of tumors is a method that offers promise for every oncologic radiologist.

Is there still a role for MRI in abdominal radiology? Oh, yes. MRI has matured into a widely accepted technique for liver imaging. There are several MR contrast agents for liver imaging that can optimize studies for every indication. Even the registration of second-generation ultrasound contrast agents in the European Union is not likely to win against MRI and MDCT. Another example is dynamic MR imaging of the small bowel, which has indeed recovered ground from CT and barium radiography for imaging of patients with small bowel obstruction. So the days of 'old-fashioned' enteroclysis seem to be numbered. Functional MRI is the first imaging modality ever to show intra-abdominal adhesions reliably, and small bowel MRI can delineate all tumors.

So there is life after MDCT. Since the EURATOM directive 97/43 took effect, the radiology community is committed to reducing radiation exposure to the population. More than ever, we are now asked to choose the most effective and least invasive imaging technique from a whole range of imaging modalities we have at our fingertips.