

## Commentary

Unfortunately the incidence of penetrating trauma to the head and neck is increasing and therefore it is now a routine indication for CT examinations. The review of this topic from one of the leading trauma centres in the UK is a useful refresher to the radiologists of Pakistan who are increasingly finding themselves reading these studies.

Another entity that is depressingly frequent in most radiology practices in Pakistan is Chronic Liver Disease (CLD). CLD and its most dreaded complication Hepatocellular Carcinoma (HCC) are a significant contributor to the overall morbidity of the population. Radiology plays a central role in the follow up of patients with CLD and the surveillance for HCC. The diagnosis of HCC is dependent on its radiological appearances, however unfortunately there are many mimics that make radiological interpretation fraught with difficulty. The paper from University of Pittsburgh is an important addition to our understanding of the processes.

Like any other discipline, radiology is also prone to errors. Our usual response to these is to try and brush them under the carpet and pretend that they do not occur. This approach is counterproductive and leads to the errors being repeated. We need to be mature enough to realise that errors are a fact of life and we should develop systems to identify the errors and try and ensure that they are minimised and not repeated. Mankad et al highlights this and is a timely reminder to all of us.

Lastly 2 articles that make brief points. One highlights innovative applications of technology; using MR to look at the bowel and the second a reminder for those of us who may have forgotten that not all pancreatic calcification is chronic pancreatitis.

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### Imaging assessment of penetrating craniocerebral and spinal trauma

Craniocerebral and spinal penetrating trauma, which may be either missile (most typically gun-related) or non-missile (most typically knife-related), is becoming an increasingly common presentation to the urban general and specialized radiology service in the UK. These injuries carry significant morbidity and mortality with a number of criteria for prognosis identifiable on cross-sectional imaging. Potential complications can also be pre-empted by awareness of certain neuro-

radiological features. Not all of these injuries are criminal in origin, however, a significant proportion will be, requiring, on occasion, provision of both ante-mortem and post-mortem radiological opinion to the criminal investigative procedure. This review aims to highlight certain imaging features of penetrating craniocerebral and spinal trauma including important prognostic, therapeutic, and forensic considerations.

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### Distinguishing clinical and imaging features of nodular regenerative hyperplasia and large regenerative nodules of the liver

**AIM:** Nodular regenerative hyperplasia (NRH) and large regenerative nodules (LRN) are distinct types of hepatocellular nodules that have been confused in the radiology literature. However, distinction is critical because their clinical significance is quite different. Our purpose was to review the clinical and imaging findings in a series of patients with NRH and LRN in order to identify distinguishing clinical and imaging features.

**MATERIALS AND METHODS:** This was a retrospective case series. The clinical and imaging features were compared in 36 patients with pathological proof of NRH and 23 patients with pathological evidence of LRN.

**RESULTS:** NRH and LRN have different predisposing

factors and imaging findings. NRH is often associated with organ transplantation, myeloproliferative disease, or autoimmune processes. Livers with NRH typically do not have enhancing nodules; none of the present patients with NRH had enhancing liver masses. In contrast, LRN are often associated with Budd–Chiari syndrome. Enhancing liver masses were noted in 19 (83%) of the 23 patients with LRN. The p values for the comparisons were less than 0.001 for both enhancing liver masses and hepatic vein thrombosis.

**CONCLUSION:** NRH and LRN can have distinct clinical presentations and imaging appearances. LRN often result in enhancing liver nodules, whereas NRH usually does not. Clinical and imaging information enables the distinction of LRN and NRH in many cases.

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### Radiology errors: are we learning from our mistakes?

**AIM :** To question practising radiologists and radiology trainees at a large international meeting in an attempt to survey individuals about error reporting.

**MATERIALS AND METHODS :** Radiologists attending the 2007 Radiological Society of North America (RSNA) annual meeting were approached to fill in a written questionnaire. Participants were questioned as to their grade, country in which they practised, and subspecialty interest. They were asked whether they kept a personal log of their errors (with an error defined as “a mistake that has management implications for the patient”), how many errors they had made in the preceding 12 months, and the types of errors that had occurred. They were also asked whether their local department held regular discrepancy/errors meetings, how many they had attended in the preceding 12 months, and the perceived atmosphere at these meetings (on a

qualitative scale).

**RESULTS:** A total of 301 radiologists with a wide range of specialty interests from 32 countries agreed to take part. One hundred and sixty-six of 301 (55%) of responders were consultant/attending grade. One hundred and thirty-five of 301 (45%) were residents/fellows. Fifty-nine of 301 (20%) of responders kept a personal record of their errors. The number of errors made per person per year ranged from none (2%) to 16 or more (7%). The majority (91%) reported making between one and 15 errors/year. Overcalls (40%), under-calls (25%), and interpretation error (15%) were the predominant error types. One hundred and seventy-eight of 301 (59%) of participants stated that their department held regular errors meeting. One hundred and twenty-seven of 301 (42%) had attended three or more meetings in the preceding year. The majority

(55%) who had attended errors meetings described the atmosphere as "educational." Only a small minority (2%) described the atmosphere as "poor" meaning non-educational and/or blameful.

**CONCLUSION:** Despite the undeniable importance

of learning from errors, many radiologists and institutions do not engage in such practice. Radiologists and radiology departments must continue to improve the process of recording and addressing errors.

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### MR enterography in the evaluation of small bowel dilation

**ABSTRACT:** Magnetic resonance (MR) enterography enables high contrast resolution depiction of the location and cause of bowel obstruction through a combination of predictable luminal distension and multiplanar imaging capabilities. Furthermore, because the patient is not exposed to ionizing radiation, sequential "dynamic" MR imaging can be performed repeatedly over time further facilitating depiction of the site and/or

the cause of obstruction. With increasing availability of MR imaging and standardization of the oral contrast medium regimens, it is likely that this technique will assume an ever-increasing role in the evaluation of small bowel dilation in the coming years. We illustrate the utility of MR enterography in the evaluation of small bowel dilation, whether it be mechanical, functional (e.g., ileus), or related to infiltrative mural disease.

## Clinical Radiology September 2009, 64(9), 903-11.

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### Are pancreatic calcifications specific for the diagnosis of chronic pancreatitis? A multidetector-row CT analysis

**AIM:** To retrospectively establish the most frequently encountered diagnoses in patients with pancreatic calcifications and to investigate whether the association of certain findings could be helpful for diagnosis.

**MATERIALS AND METHODS:** One hundred and three patients were included in the study. The location and distribution of calcifications; presence, nature, and enhancement pattern of pancreatic lesions; pancreatic atrophy and ductal dilatation were recorded. Differences between patients with chronic pancreatitis and patients with other entities were compared by using Fisher's exact test.

**RESULTS:** Patients had chronic pancreatitis (n=70), neuroendocrine tumours (n=14), intraductal papillary mucinous neoplasm (n=11), pancreatic adeno-

carcinoma (n=4), serous cystadenoma (n=4). Four CT findings had a specificity of over 60% for the diagnosis of chronic pancreatitis: parenchymal calcifications, intraductal calcifications, parenchymal atrophy, and cystic lesions. When at least two of these four criteria were used in combination, 54 of 70 (77%) patients with chronic pancreatitis could be identified, but only 17 of 33 (51%) patients with other diseases. When at least three of these four criteria were present, a specificity of 79% for the diagnosis of chronic pancreatitis was achieved.

**CONCLUSION:** Certain findings are noted more often in chronic pancreatitis than in other pancreatic diseases. The presence of a combination of CT findings can suggest chronic pancreatitis and be helpful in diagnosis.