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## EDITORIAL

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# Expected Imaging Findings — Incidental and Non-incidental

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When an imaging study is reported, we focus on the target structures or organs at the centre of the images. With accumulating experience and improving knowledge we can now additionally report peripheral findings from other areas of these images. These findings enable us to provide more helpful information from the studies than our clinical colleagues. With time, recognition of these additional findings, although not well presented, becomes the expected standard of practice. This is unavoidable, as expectations from patients and our clinical colleagues continue to grow. This drives us to improve and enhance the value of our reporting.

Further advances in all imaging modalities have resulted in many findings that, although incidental, radiologists are expected not to miss. Examples include a pulmonary nodule on computed tomography (CT) coronary angiography, a malignant looking colonic stricture on a non-contrast CT urography for stone, an aortic aneurysm on magnetic resonance imaging (MRI) of the lumbar spine, a nasopharyngeal mass on MR of the brain. Some of these findings are relevant to the patient's complaint or condition, whereas others may affect the patient's future general health or survival.

It is controversial whether a normal variant is an important finding. It is impossible to predict a scenario in which a patient with an anomalous or normal variant artery undergoes an emergent operation. In coronary angiography the use of a statistical occurrence of  $\leq 1\%$  of population is considered an anomaly and  $>1\%$  as a normal variant<sup>1</sup>; however, the definition of and differentiation between an anomaly and a normal variance are not clear cut for most regions of the body.

Vashishta et al<sup>2</sup> revealed the variable anatomy of renal arteries and veins using CT. This is of increasing importance as knowledge of any variation is crucial for minimally invasive procedures that are frequently performed and preferable to conventional open surgery.

The detection or demonstration of such variations in a routine abdominal CT study performed for other reasons is vital because preoperative examination may not be necessarily available in an emergency situation.

The presence of incidental imaging findings can lead to malpractice litigation.<sup>3</sup> Radiologists now need to know how to handle these findings and solve the problems of incidentalomas.<sup>4</sup> Guidelines and white papers have been published by various Societies and Colleges to give advice about how to handle these findings in daily practice.<sup>5,6</sup> Similarly, a report on the management of incidental findings detected during research imaging has been published by the Royal College of Radiologists.<sup>7</sup>

Many findings may not be incidental. Early features with subtle findings in syndromal disease may be present on imaging studies that target organs related to the patient's chief complaints. Ip et al<sup>8</sup> reviewed and illustrated the musculoskeletal manifestations of type 1 neurofibromatosis. The authors also discussed skin and soft tissue manifestations that are commonly seen in patients with neurofibromatosis. However, the findings are often neglected in daily practice because they are expected to be present and known clinically. These may be encountered on ultrasound or CT for skeletal findings and body imaging for other suspected unrelated diseases. Special attention to these findings will avoid unnecessary misunderstanding of imaging results by clinicians and patients.

Cheng et al<sup>9</sup> present an excellent review of normal anatomy and common pathologies in dental imaging. Details of dental images are often neglected or only traditionally interpreted by dental colleagues or highly subspecialised oro-maxillofacial imaging radiologists. Their article provides an overview of the anatomy, nomenclature and common pathologies. Such information can improve the accuracy and value of our

reports on imaging study, including that of the facial maxillary and mandibular regions.

In the present medicolegal environment, as Weckbach<sup>10</sup> says, “It is very hard to ignore something once it has been found — even if ignoring it is the right thing to do.” Expression of a professional opinion by the radiologist is essential when reporting an imaging study. To do this, we must be familiar with the expected imaging findings, irrespective of whether they are incidental or non-incidental. This can be achieved through evidence-based knowledge and information from studies and reviews.<sup>11</sup>

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The following theme has been set for future issue of HKJR. The Editorial Board would like to invite authors to submit papers (reviews, research articles, pictorial essays, or brief communications) on this topic:

**Theme** (deadline for initial submission of manuscripts)

- Nasopharyngeal Carcinoma (31 October 2018)

Criteria for selection of manuscripts include: (1) quality, rigor and originality; (2) significance and usefulness for enhancing our understanding of the topics; and (3) clarity of writing and presentation. All manuscripts must follow the “Information for Authors” listed at: <http://www.hkjr.org/page/information-author>.

Manuscripts submitted for the Theme Issue will first undergo the same peer review process as all regular manuscripts. Owing to the timeline for publishing each Theme Issue, however, HKJR will monitor the progress of manuscripts through the review process and try to shorten the overall process; likewise, authors should expect to be especially timely in returning revisions.

Authors should submit the papers via our online submission system: <http://www.hkamedtrack.org/hkjr>.