Interpretation and reporting of CT colonography
17HDC02239, 28 June 2019

Diagnostic radiologist ~Radiology service ~ CT colonography ~ Reporting ~ Interpretation ~ Right 4(1)

A man in his late sixties was referred by his doctor for a computed tomography (CT) colonography. He was well at the time, but decided to have the colonography privately, owing to a family history of bowel cancer. The CT colonography was performed by a diagnostic radiologist. Two scans were performed, in the prone (face down) and supine (face up) positions.

On analysing the images, the radiologist had difficulty deciding whether or not an appearance in the caecum was abnormal. He said that it looked like a mass of faeces, and fulfilled criteria for this, including that it changed shape and moved between the two scans. After reviewing it for a considerable time, he could not reach a conclusion, but his starting point was that it was faecal residue.

The radiologist sought a second opinion from a colleague, who performed a second read of the study, and concluded that the abnormality in the caecum was retained faecal material. The basis of this decision was that between the prone and the supine scans, the abnormality moved from one side of the colon to the other as the patient changed position.

The second radiologist said that he did not completely dismiss the possibility of a tumour; rather, his interpretation was that the mass was most likely faecal residue. He noted that he did not complete the final report. However, he did not record a differential diagnosis in the CT colonography register, used for seeking second opinions.

The first radiologist told HDC that following the second opinion, he reviewed the scan again, accepted his colleague's conclusion, and reported the examination accordingly. The CT colonography report documented the results as normal, and recommended a follow-up ultrasound in five years' time.

Two years later, the man became unwell. A blood test indicated abnormal liver function, and he was referred for an abdominal ultrasound, which suggested liver metastases. A CT scan of the chest, abdomen, and pelvis showed a 53mm mass in the ascending colon, with bilobar liver metastases and lung metastases. An ultrasound-guided liver biopsy confirmed the diagnosis of metastatic bowel cancer. Owing to the extent of the disease it was considered incurable, and the man was commenced on palliative chemotherapy.

Findings
Adverse comment was made about the first radiologist's care.

It was found that the second radiologist breached Right 4(1). It was considered that as the second reader, his incorrect interpretation of the colonography abnormality, and failure to note the differential diagnosis of a possible lesion (despite not having dismissed this possibility), and accordingly to recommend further testing, comprised a significant departure from the accepted standard of care.

The radiology service was not found vicariously liable for the radiologist's breach of the Code.

Recommendations

It was recommended that the second radiologist (a) provide a written letter of apology; (b) complete a relevant CT colonography training course; and (c) perform an audit of the last 50 CT colonography cases he has reported, with a peer review of each to identify whether these are in line with standard practice.