CORRESPONDENCE

(The Editors do not hold themselves responsible for opinions expressed by correspondents)

Letter to the editor: Proper imaging method for evaluation of solitary renal parapelvic neurofibroma

The Editor,

We read with great interest the article by Dr Eljack and colleagues [1] in the June 2010 issue of the *British Journal of Radiology*. In their article, they described the radiological changes of this rare kidney tumor [1]. Until now, radiological characteristics of solitary renal parapelvic neurofibroma have been considered non-specific, and difficult to differentiate from malignant tumors [1–5]. In some cases, radical surgical operations have been performed on these patients because of radiological similarities between solitary renal parapelvic neurofibroma and malignant tumors [1, 3, 5]. Therefore, pre-operative identification of the benign nature of the tumour is important for the choice of surgical operation. Here, we suggest possible methods of identification of the nature of the tumour.

The theory of Folkman's tumour angiogenesis factor provided a theoretical basis for (CT and MRI) perfusion imaging [6]. Perfusion experiments were executed on a large number of patients with nodules of the lung and breast, which demonstrated that time-signal intensity curves obtained by perfusion parameters were reliable for the diagnosis of benign and malignant lesions [7–9]. In a prior study, benign lesions of the breast demonstrated a curve of increasing enhancement or plateau of signal intensity, which was different from the type of washout of signal intensity obtained by malignant lesions [8]. In another study, by analysis of histology, vascular density and vascular permeability in benign and malignant lesions of the breast, they concluded that vascular permeability was the main factor in determining the curve pattern [9]. Furthermore, malignant nodules had high vascular permeability, but benign had low vascular permeability, both of which were related to the expression of the degree of vascular endothelial growth factor [9].

Renal parapelvic neurofibroma is a benign lesion confirmed by pathological histology [1]. Therefore, we believe that there may be a curve of increasing enhancement or plateau of signal intensity based on low vascular permeability. Further more, we suggest that perfusion

imaging may be of help in differentiating renal parapelvic neurofibroma from malignant lesions of the kidney.

Yours etc.,

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