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LETTER TO THE EDITOR

Oesophageal cancer staging: a minefield of measurements

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

To the Editor,

I read with great interest Giganti et al's¹ recent pilot study comparing diffusion weighted magnetic resonance imaging (MR), multidetector computed tomography (MDCT) with the current standard imaging modalities for staging oesophageal cancer, positron emission tomography (PET) and endoscopic ultrasound (EUS). While I appreciate this is a preliminary pilot study, with only 18 patients, it would be useful to receive some clarification. I would also like to humbly suggest some additional data to be collected in any forthcoming larger study on the same topic. My comments below:

I note that the tumour staging is skewed towards T1–2 and N0 cancers. The authors state that they have divided the population of tumours into these staging categories for analysis however, I cannot see any subgroup analysis of sensitivity, specificity and other parameters with T1–2 and N0 tumours alone in the paper. As the authors rightly state the higher stage tumours are intrinsically easier to detect than these superficial tumours and will likely have higher sensitivity values as a result. These may mask the sensitivity which is more of interest, that is the ability to accurately stage these small, superficial tumours and this may be a better benchmark for the modalities' accuracy.

The researchers have used two independent reporters for MR and MDCT analysis, with a third reporter in the case of discordance between the initial two. This is contrary to the sole reporter used in PET and EUS. While the authors acknowledge this to some extent as a limitation, this should not be understated. The two reporters combined with a third in the case of discrepancy is a significant bias, which allows increased scrutiny of the images and hence likely increased sensitivity and specificity. It would be of interest to know how many required a 3rd reporter because of discrepancy between the first 2 reports.

It would be useful to know how accurate MR and MDCT were for measurement of length and volume of the tumour and how well they correlate with existing modalities. Accurate delineation is of course vital for radiotherapy and this can be found on staging, hence these values would be useful in the present study. Would the authors be able to share any data they might have on these parameters?

While not a limitation of the present study, it would be valuable to know if any of the measured parameters with MR and MDCT correlate with prognosis, as many variables with PET-CT and EUS have been shown to do.²

REFERENCES

1. Giganti F, Ambrosi A, Petrone MC, Canevari C, Chiari D, Salerno A, et al. Prospective comparison of MR with diffusion-weighted imaging, endoscopic ultrasound, MDCT and positron emission tomography-CT in the pre-operative staging of oesophageal cancer: results from a pilot study. *Br J Radiol* 2016; **89**: 20160087. doi: <https://doi.org/10.1259/bjr.20160087>
2. Swisher SG, Maish M, Erasmus JJ, Correa AM, Ajani JA, Bresalier R, et al. Utility of PET, CT, and EUS to identify pathologic responders in esophageal cancer. *Ann Thorac Surg* 2004; **78**: 1152–60; discussion 1152–60. doi: <https://doi.org/10.1016/j.athoracsurg.2004.04.046>