Radiology

Letters to the Editor

Pulmonary Metastasectomy for Colorectal Cancer: Randomized Controlled Trial

From

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Editor:

We were interested in the study by Dr Hasegawa and colleagues (1) regarding radiofrequency ablation (RFA) for pulmonary metastases and the accompanying editorial by Dr Gemmete (2), who kindly referred to our pulmonary metastasectomy for colorectal cancer (PulMICC) trial. To our knowledge, this is the only randomized trial (RCT) comparing pulmonary metastasectomy to active monitoring in patients with colorectal cancer that is now published (3). It was designed as an ambitious noninferiority trial but failed to recruit the intended number of patients. With 93 patients randomized, it showed no difference in survival between the two groups, out to 5 years (hazard ratio, 0.93; 95% CI: 0.65, 1.56) and 5-year survival in both arms around 30%. But, importantly, it has enough statistical power to show that survival in the control arm is unlikely to be less than 5%, as is so widely quoted and believed. Two randomized phase II trials (4,5) have reported on the use of RFA (n = 119) and stereotactic radiation therapy (n = 99) for metastases. Unlike PulMiCC, they both had significant imbalance in key prognostic factors favoring intervention, but even so, the 5-year survival in the control arms was between 25% and 30% and neither showed a convincing survival benefit (4,5).

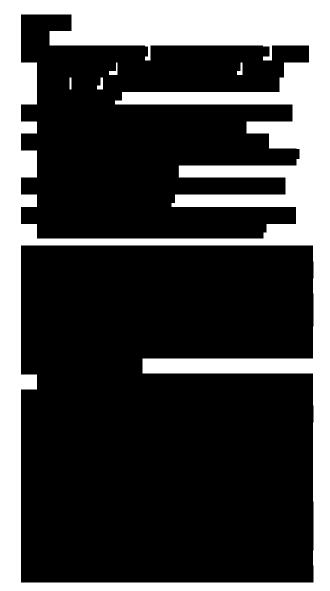
As with any RCT, the patients in the PulMiCC trial were selected by entry criteria and researcher choice, but key characteristics are well balanced and similar to those in the many published observational studies. The observational study of Dr Hasegawa and colleagues appeared to show impressive results, but this was clearly a highly selected group of patients and, without any control group, it is impossible draw meaningful conclusions about overall effectiveness.

We fully accept that it is possible that there may be a survival benefit for selected patients from pulmonary metastasectomy, but the current evidence does not suggest that this is as great as generally believed. A large RCT comparing pulmonary metastasectomy, whether surgical or by RFA or stereotactic radiation therapy, to active monitoring (ie, no treatment) is still needed to show whether there is benefit and if so for whom. If, as Dr Gemmete remarked, RFA is ready for "prime time," this should not mean routine practice, but as a comparator in such an RCT.

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