In the treatment of rectal cancer lung metastasectomy gives little if any benefit compared with the importance of local control.

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Dear Editor

506 words

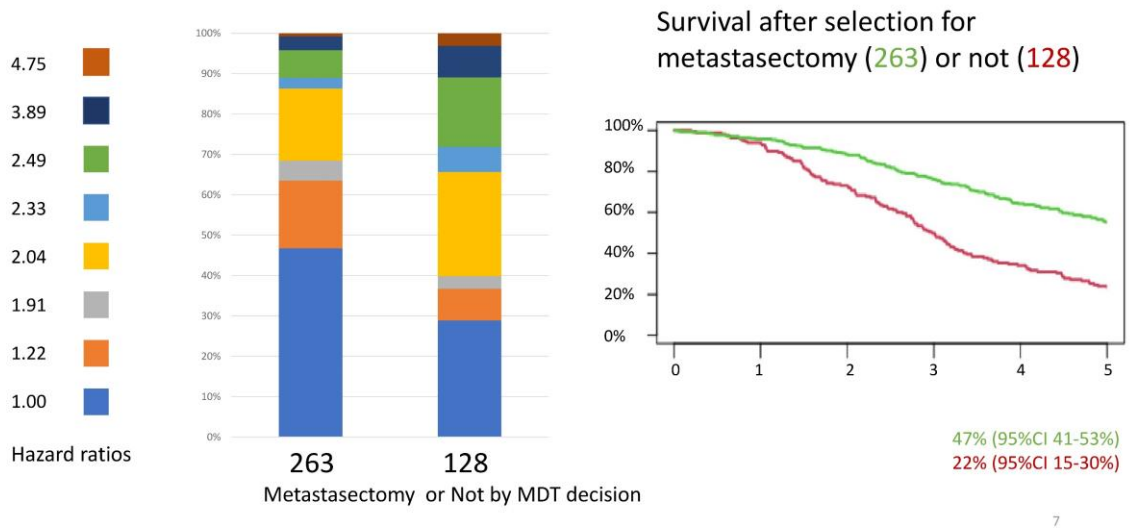
In their excellent analysis of outcomes for patients with Stage IV rectal cancer(1) we very much appreciate Kwon and colleagues referring to the Pulmonary Metastasectomy in Colorectal Cancer (PulMICC) randomized controlled trial (RCT). They cite an interim PulMiCC RCT report(2) writing that a "recent phase III randomized PulMiCC trial to examine the role of lung metastasectomy was stopped because of poor recruitment and did not give a conclusive answer." That is correct as far as it goes but we now know more from subsequent publication of the full PulMiCC cohort.

In contrast to colon cancer, rectal cancer is much more likely to have lung first or lung only metastases. The best available evidence on the effect of lung metastasectomy is important as they stress writing "Survival of these patients may also depend on the resectability of the metastases". The word "resectability" is well chosen, placing the emphasis on the nature of the metastases rather than a treatment effect of metastasectomy. The PulMiCC group have published the full trial results(3) and survival in the full cohort of 512 patients within which the RCT was nested.(4)

There are conclusive statements that can now be made. First the survival with unoperated metastases is higher than widely believed.(5) In their consensus statement the US Society of Thoracic Surgeons stated that without lung metastasectomy that "metastatic disease survival is assumed to be zero, a contention not supported by the literature".(6) It can now be refuted with evidence. Survival without metastasectomy in the control groups of randomised trials of CRC was 30%. This is important because lung metastases do not preclude long survival making local control rectal can all the more important. We also know from the RCT that Quality of Life(2) and Health Utility(7) are not favourably influence by lung metastasectomy in CRC.

In the PulMiCC cohort the cancer teams selected 263 patients for lung metastasectomy and elected to not operate on 128. (Figure) There was a survival difference of 47% versus 22% which is very much smaller than the assumed absolute difference of 60% versus 0%.(6, 8) The explanation is of course in the selection. Those selected for surgery in non-randomized PulMiCC more often had a solitary metastasis, freedom from liver involvement, non-elevated carcinoembryonic antigen, better lung function and better ECOG scores. The difference in favourable and adverse factor could explain all the difference in survival.

Lung metastases are infrequently symptomatic, even in the terminal stages of CRC, and rarely contribute to dying with the disease. We reasonably conclude that the presence of lung metastases may have a relatively small part to play in the remaining lives of these patients. Emphasis on control of pelvic disease appears to us to be much more important. As removal or ablation of lung metastases makes no demonstrable difference to survival it would be in the patients interests to leave this easily imaged component of the disease available for so that progress can be monitored. Indolent disease could then be monitored with reassurance, and progress and response to systemic anti-cancer treatments more easily evaluated.



Legend to Figure:

In the PulMiCC prospective observational cohort the decision for (N=263) or against (N=128) lung metastasectomy by the cancer teams. The proportions of patients with unfavourable characteristics — multiple metastases, elevated carcinoembryonic antigen and liver involvement — are color coded according to the hazard ratios and their product. Those not having metastasectomy also had worse lung function and more functional impairment (ECOG). Most if not all five-year survival difference could be explained by this difference in baseline risk.

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