

# Diagnostic and planned salvage pulmonary metastasectomy

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*Comment on:* Begum H, Swaminath A, Fahim C, *et al.* The histologic effects of neoadjuvant stereotactic body radiation therapy (SBRT) followed by pulmonary metastasectomy—rationale and protocol design for the Post SBRT Pulmonary Metastasectomy (PSPM) trial. Transl Cancer Res 2022;11:918-27.

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The authors should be congratulated for this study protocol paper entitled "The histologic effects of neoadjuvant stereotactic body radiation therapy (SBRT) followed by pulmonary metastasectomy-rationale and protocol design for the Post SBRT Pulmonary Metastasectomy (PSPM) trial" (1). In this paper, the authors described a very interesting and well-designed study protocol and their comment. Essentially the authors will assess the effectiveness of SBRT on reducing tumor viability at a histological level in pulmonary oligo-metastases. If no radiological disease progression was observed 4-6 weeks after SBRT, they will attempt surgery resection for more effective local control of oligometastatic diseases. The purpose of surgical resection is primarily diagnostic and focused on assessment of histopathological outcomes such as complete pathologic response after neoadjuvant SBRT, while patient benefit would not be impaired because salvage pulmonary metastasectomy is planned.

The authors stated that patient recruitment will continue until 39 patients are enrolled. On the basis of their institutional data on case volume, two years may be sufficient if 50% of eligible patients agree to proceed with the trial. The authors may experience a challenging situation in recruiting patients, as seen in a previous clinical trial for patients with pulmonary metastases and in such a situation they may consider to switch to a multi-institutional study.

Several points should be paid attention to in recruiting patients for this study. An ideal subject would be patients

with a single, small, and peripheral lesion. On the other hand, patients whose lesions are barely resected with wedge resection at initial presentation should be avoided. In our series of salvage pulmonary metastasectomy, all the patients required a lobectomy for complete resection, which would have only required a sublobar resection (wedge resection or a segmentectomy) if upfront pulmonary metastasectomy had been performed (2). One may insist that a little more generous wedge resection may be sufficient for their diagnostic and planned salvage pulmonary metastasectomy than that for upfront metastasectomy, multiple resections may lead to a significant amount of loss of pulmonary parenchyma. In treating pulmonary metastases, we should consider management of repeated pulmonary metastases (3). Patients who would require gene analyses for subsequent systemic treatment may also be avoided, because it is unknown whether gene analyses are feasible after definitive doses of SBRT. Another question would be whether they plan to evaluate intraoperatively lymph nodes during pulmonary metastasectomy. Lymph node metastasis is an important prognostic factor of survival outcomes in patients undergoing pulmonary metastases, whereas lymph node metastasis was difficult to detect preoperatively on the basis of radiological investigations (4). We understand intraoperative lymph node dissection would not be therapeutic, however, it would be interesting to add an intraoperative lymph node dissection and histological evaluations because this trial appears essentially to focus on evaluation of the effects of SBRT.

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*Ethical Statement:* The authors are accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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