



## Editorial

## Barriers in Oligometastasis Care in Korea: Radiation Oncologists' Perspectives

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Despite multitude of previous publications related to the care of patients with oligometastasis, much remains to be clarified starting from the definition to the optimal treatment methodology. Likely stemming from this uncertainty, universal consensus that everyone could admit on various relevant topics among the caregivers have yet to be reached. The Oligometastasis Working Group, formed under the Korean Cancer Association, have recently underwent a few nationwide survey studies among the board-certified radiation oncologists, starting from general understanding on oligometastasis [1]. Further studies focused on more specific case-based topics on lung, prostate, and colorectal primaries. Another study expanded the survey to the colorectal surgeons, the members of the Korean Society of Coloproctology [2]. Though failed to reach the statistical significance, awareness on and application of European Society for Radiotherapy and Oncology (ESTRO)/European Organisation for the Research and Treatment of Cancer (EORTC) classification [3] differed based on the patient volume cared by the respondents (less than 30 vs. more than 30 new patients per month). This may be interpreted as either those servicing more patients were more aware of the concept or the number of patients serviced was larger because these physicians offer treatment to wider range of patients. Likewise, in a survey targeting the radiation oncologists specializing in lung cancer, those servicing more patients tended to set higher limit for the number of metastatic sites and involving organs regarding the definition of oligometastasis. Among the radiation oncologist specializing in genitourinary cancer, higher level of consensus was reached on synchronous oligometastasis compared to metachronous metastasis, who tended to offer stereotactic ablative dose radiotherapy more frequently for visceral metastasis than for bony metastasis [1]. In a survey on oligometastasis from colorectal primary, there were statistically significant disagreements between the radiation oncologists and the surgeons on the requirement of molecular diagnosis, role of local treatment for repeated and induced oligometastasis, and the valuable end-points (progression-free survival or local control) [2]. These inconsistencies in defining and categorizing oligometastatic disease may serve as a practical barrier in care of the oligometastatic patients.

Another barrier often faced in daily practice, beyond the level of consensus, would be the reimbursement issue. Stereotactic body radiotherapy (SBRT) is enlisted under the Korean National Health Insurance allowance of medical care since 2014 [4,5]. According to the current version, oligometastatic disease has been defined as five or less lesions, which is listed among the eligibility criteria for SBRT reimbursement. Also included in the decree is the maximum number of fractions of SBRT, which is set at four fractions. Though boost is among the indications of SBRT, sequential treatment with intensity modulated radiotherapy (IMRT) followed by SBRT, or vice versa, is not reimbursed in daily practice, and regarded as one of the major to-be-reviewed issues. This discrepancy may have been set-up to minimize the possible abuse of the high-end treatment at the introduction phase. With more emerging evidences to support the combinatory use of detailed methodology, however, reconsideration and modification of the currently employed erroneous guideline is highly required. Further, limiting the number of fractions at four is inconsistent with various protocols tested and proven safe and effective through various clinical studies for well-known sites of clinical validity, such as lung and spine [6,7], not to mention the growing evidence on widened applicability to the sites throughout the body and in various clinical settings as detailed in the aforementioned ESTRO/EORTC classification, as well as others. In further detail, though oligometastatic disease is defined as having five or less lesions throughout the body in the current version of allowance, the lesions involving the spine are only counted separately for the cervical, thoracic, lumbar, and sacral locations. Similarly, nodal lesions are counted independently for the thoracic, abdominal, and pelvic locations. In other words, for instance, though having the same number of lesions, SBRT for separate two lesions within the T-spine without any other lesion would be reimbursed for only once on the T-spine lesion, whereas, however, two SBRT procedures for one lesion in the T-spine and the other in the L-spine could be independently reimbursed. Likewise, SBRT would be reimbursed only once,

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if treated for separate lesions located within the abdominal nodal station, whereas two SBRT treatments of both lesions in the mediastinum and abdominal station will be reimbursed separately. To make things more complicated than it already is, the practical guideline states that all metastatic lesions to the spine would be reimbursed separately regardless of the location, if treated for palliative purposes to relieve neurologic symptoms. However, such an exception in the guideline, though clearly stated, is rarely, if ever, enforced in daily practice. On the other hand, for visceral metastasis, SBRT is reimbursed only for the ipsilateral lesion involving the paired organs and singularly involving the single organs. This guideline is put into practice as treatment of one lesion in the left lung and another lesion in the right lung will be reimbursed for each lesion, whereas treatment of two lesions in the right lung will not be reimbursed separately but only once. For the liver, despite meeting the oligometastatic disease definition with less than five lesions, but located close to the central structure or close to the neighboring hollow viscus, SBRT will be reimbursed only if four fractions of treatment to single lesion within the 3-month' time frame. The last part being another employed rule in daily review. High-end radiotherapy, including IMRT and SBRT, shall not be reimbursed if delivered within 3-month interval to the same patient.

The SABR-COMET trial established the role of SBRT in the oligometastatic patients irrespective of the primary disease [8]. Subsequent studies, however, showed the contrasting results for the specific sites [9]. There are many on-going trials testing the value of SBRT or other forms of metastasis-directed local treatment [10]. While definitive detail for the care of oligometastatic patients in varying status may take a while before standardized, however, the optimal care of these patients in daily practice must continuously go-on. We are too aware of the fact that cancer treatment requires multidisciplinary approach and continuum of care. Thus, building the reasonable consensus among the caregivers on the definition, management principle, and valid options would be crucial in the actual patient care in our daily practice. Continued education and training on oligometastatic disease would be required to build and refine the consensus among the participating caregivers. Further, updating the regulatory issues for more practical employment of metastasis-directed local therapy, such as SBRT, would be of help not only for the care of these patients, but also for lessening the administrative burden by the involved caregivers.

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#### Conflicts of Interest

Conflict of interest relevant to this article was not reported.

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