Radical consolidative treatment (RCT) for oligometastatic disease consist in the intent with local ablative treatments after or previous to a systemic treatment for consolidation in patients with oligometastatic disease. The concept of oligometastasis has opened a window of interest as a potentially curative opportunity for patients whose diseases were previously considered intractable.

Clinical data reported to date are highly heterogeneous, making it very difficult for clinicians to decide whether or not to administer RCT.

Currently, we only have observational studies, with partial results on treated favourable cases, but without good quality randomized studies, which means that decisions about the application of RCT are based on low-quality evidence.

However, the fact that some patients with volume-limited NSCLC have better long-term survival has led to the hypothesis that oligometastatic disease could be an intermediate stage between localized or micrometastatic disease and disseminated disease.

Due to the lack of published phase III studies with adequate sample sizes, the influence of RCT on survival outcomes remains unclear and need further investigations.

The first favourable data of curative intent therapy for NSCLC oligometastatic disease have been obtained primarily in surgical treatment, observing 5-year overall survival rates of up to 60% in some series.

Advances in technology such as stereotactic body radiotherapy have been postulated as a non-invasive alternative to surgery. Studies with a large number of patients and a longer follow-up are still needed to better estimate the effect of this local consolidation therapy.

Recently other ablative therapies have emerged to complete the armamentarium of radical consolidative therapies, thermal ablations that includes radiofrequency ablation, microwave ablation or cryoablation and non-thermal like the use of pulsed electric fields ablation are promising alternatives to surgery and stereotactic body radiotherapy.

To explain the results of different studies we must understand the heterogeneity in tumour biology, one example is how the immunomodulatory effect of ablation therapies can occur with NSCLC and not with other types of tumours.

It is likely that there is an important interaction between the form of systemic therapy and the histology (and/or molecular signature). These characteristics of the tumour may affect the inherent sensitivity, immunogenicity, and response to systemic treatment. There are studies underway to evaluate the effect of local treatment in its different modalities after different systemic treatments, including checkpoint inhibitors.

Preclinical and clinical data have indicated that cancer cells with significant exposure of the DNA after local therapy (radiation, pulsed electric field or surgery) may function as a cancer-specific *in situ* vaccine that may activate immune response and reduce recurrences.

However, in relation to RCT, individualized management is recommended, especially given the many potentially influential variables in those patients.

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