Deciding site of biopsy at metastatic relapse: reply

Filip Janku

To the editor,

It is plausible that the heterogeneous biology of metastatic lesions at different metastatic sites can have different implications for patients' prognoses and treatment outcomes. In addition, a so-called 'mixed response' has been observed more frequently in a setting where targeted therapies are used for treatment [Janku, 2014]. For instance progressing liver metastases, even when there are other cancer lesions responding elsewhere, can have a far greater clinical significance due to the biological importance of liver parenchyma. Venniyoor suggests that tumor tissue acquisition and molecular profiling should be performed on the basis of clinical relevance rather than accessibility [Venniyoor, 2014]. Even though such an approach can be advisable, several potential caveats need to be recognized. First, biopsies are not always feasible or recommended if the risk–benefit ratio is unfavorable. Overall, these procedures are associated with a small, but definite, risk of complications such as pain, bleeding, infection, and damage to adjacent tissues. In our institution, we reviewed 745 research biopsies performed on 576 patients. Overall and major complication rates were 5.2% (39 of 745 biopsies) and 0.8% (6 of 745 biopsies), respectively [Overman *et al.* 2013]. It is plausible that the risk of complications can increase when less accessible material is

obtained. Furthermore, the molecular profile can differ even within the same cancer lesion, which was elegantly demonstrated in a small study that demonstrated three different results for *PIK3CA* mutation status (H1047R, E542K and wild-type *PIK3CA*) in different areas of a single lesion [Dupont Jensen *et al.* 2011].

Conflict of interest statement

The author declares no conflict of interest in preparing this letter.

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