

## Comments to “Long-Term Survival Benefit and Potential for Cure After R1 Resection for Colorectal Liver Metastases”

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### TO THE EDITORS

We read with interest the article by Hosokawa et al. regarding what they called as “*potentially cured*” patients submitted to R1 resection of colorectal liver metastases (CLM).<sup>1</sup> Authors defined “*cure*” as a disease-free interval of 5 years or more after the last hepatectomy or the last resection of extra-hepatic metastases. From an initial study population of 428 resected patients (R0: 219; R1: 209), they excluded 36.7% of patients with less than 5 years of follow-up and identified 271 patients for survival analyses (R0: 130; R1: 141). In this latter study group, 18% of initially R1 and 23% of R0 patients did not experience any further tumor recurrence. We believe that this measure can not be considered as a true “*cure fraction*”. In epidemiology, cure is said to occur when the mortality of patients, treated for a specific disease, returns to the same level as that of the general population, as endorsed by the United States National Cancer Institute.<sup>2</sup> In the present analysis such a comparator was not provided and Authors empirically set the time-to-cure at 5 years from surgery. We recently reported what is the probability of being cured from CLM after R0 hepatic resection using a cure-rate model.<sup>3</sup> We observed that in the whole study population (1012 patients) the time-to-cure was 6.5 years with a 99% level of confidence, meaning that after this time point, a patient alive without tumor recurrence could be considered cured with 99% certainty. The time-to-cure was found to increase up to more than 7 years in presence of negative prognostic factors. Thus, from this point of view the

threshold of 5 year has to be considered too early in respect to the history of the cancer. If not statistically assessed, the “*safety*” threshold to define “*cure*” must be moved toward, even up to 10 years, as already adopted by other Authors.<sup>4,5</sup> In the view of all these aspects, the present definition of “*cure*” seems misleading and can lead to inaccurate informations to patients who would like to be fully informed regarding what awaits them after hepatic surgery.<sup>3</sup> On the contrary, we believe that the measure that Authors provided in their article has to be considered as a “*conditional survival*” that is, in the present study, the probability of being alive without tumor recurrence once that 5 years from after the last hepatectomy or the last resection of extra-hepatic metastases have already passed.<sup>6,7</sup>

### REFERENCES

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