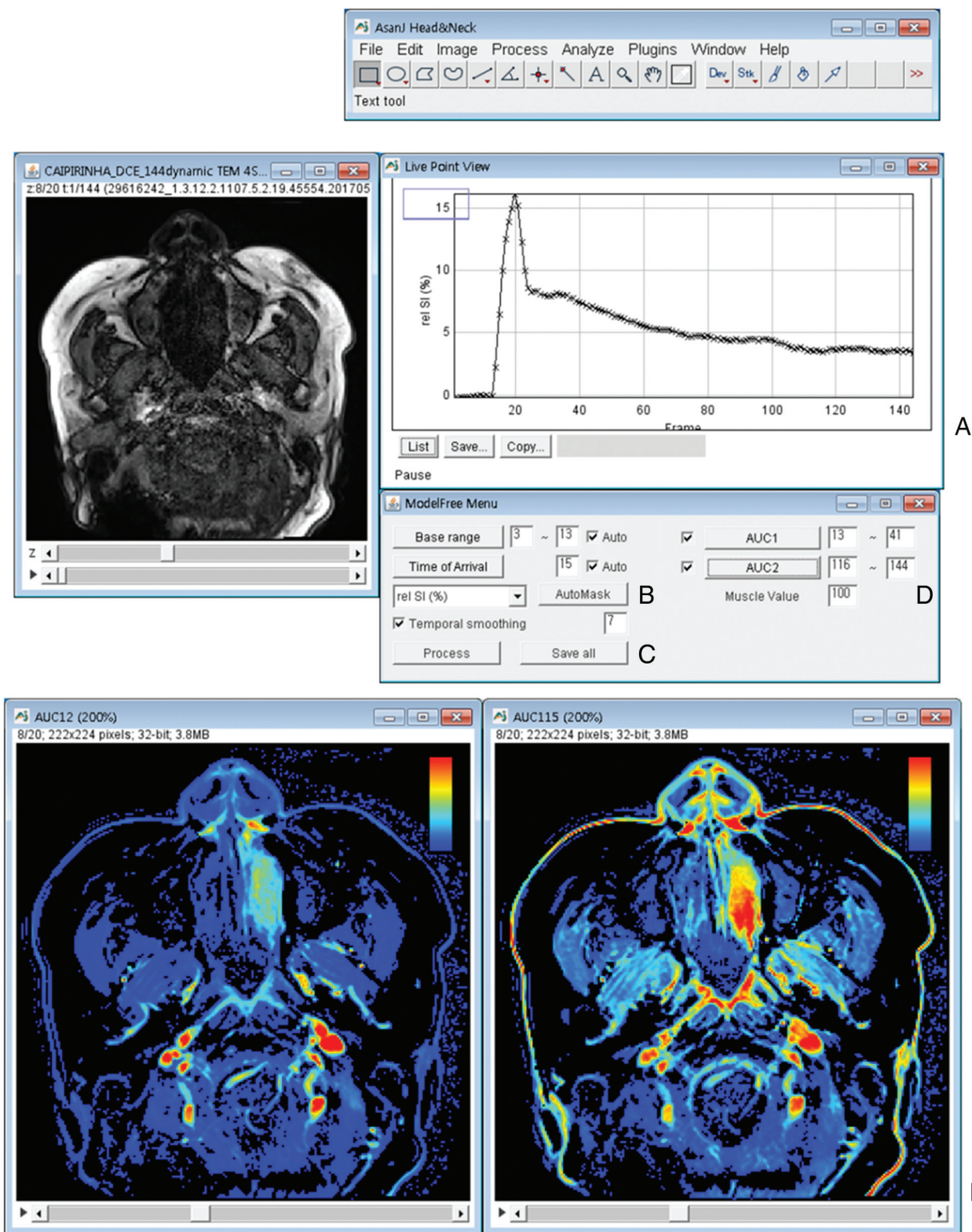


ON-LINE APPENDIX

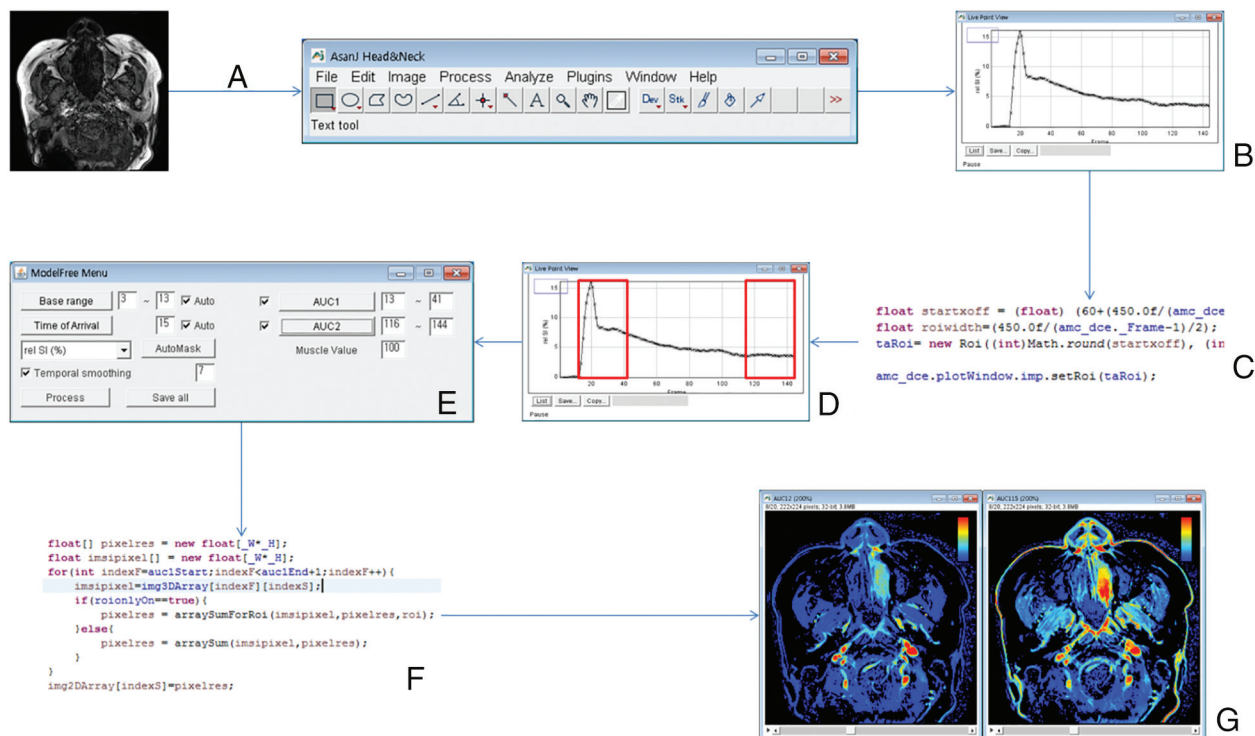
In this work, we processed the DCE-MR imaging data and created the color maps using the in-house-developed software AsanJ, which was based on a plug-in package for ImageJ. For DCE-MR imaging processing, the time-signal intensity curve was plotted. On the TSI curve, the SI was normalized using the relative SI percentage change compared with baseline.¹ The software is described in On-line Figs 1 and 2.

REFERENCE

1. Chung WJ, Kim HS, Kim N, et al. **Recurrent glioblastoma: optimum area under the curve method derived from dynamic contrast-enhanced T1-weighted perfusion MR imaging.** *Radiology* 2013;269:561–68 [CrossRef](#) [Medline](#)



ON-LINE FIG 1. The user interface of in-house-developed software AsanJ. The time course of CI is plotted to obtain a TSI curve (A). The onset time of contrast enhancement in the contrast-enhancing voxel (B) can be calculated automatically or set manually. Temporal smoothing of the moving average method can be applied (C), the time interval for initial and final AUC values can be set (D), and a pair of voxel-based color maps is generated using this in-house-developed software, AsanJ (E).



ON-LINE FIG 2. Postprocessing workflow to generate voxel-based color maps. Image transfer (A), contrast index calculation and plotting in AsanJ (B), automatic calculation of baseline and onset time (C), setting the time interval for IAUC₉₀ and FAUC₉₀ values (D), checking parameters (E), calculating the IAUC₉₀ and FAUC₉₀ values (F), and generating a pair of color maps (G).