Visualization of perfusion changes with laser speckle contrast imaging using the method of motion history image

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Résumé en anglais	Laser speckle contrast imaging (LSCI) is a real-time imaging modality reflecting microvascular perfusion. We report on the application of the motion history image (MHI) method on LSCI data obtained from the two hemispheres of a mouse. Through the generation of a single image, MHI stresses the microvascular perfusion changes. Our experimental results performed during a pinprick-triggered spreading depolarization demonstrate the effectiveness of MHI: MHI allows the visualization of perfusion changes without loss of resolution and definition. Moreover, MHI provides close results to the ones given by the generalized differences (GD) algorithm. However, MHI has the advantage of giving information on the temporal evolution of the perfusion variations, which GD does not.
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