Tissue perfusion rate estimation with compression-based photoacoustic-ultrasound imaging (Erratum)

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This article [*J. Biomed. Opt.* **23**(1), 016010 (2018)] was originally published online on 18 January 2018 with errors concerning the labeling and captions of figures. This information is corrected below.

On p. 4, Sec. 3, paragraph 2, the figure callouts have been changed as follows:

The distribution of perfusion rates within the main ROI when the hand is submerged in the cold and hot water baths is shown
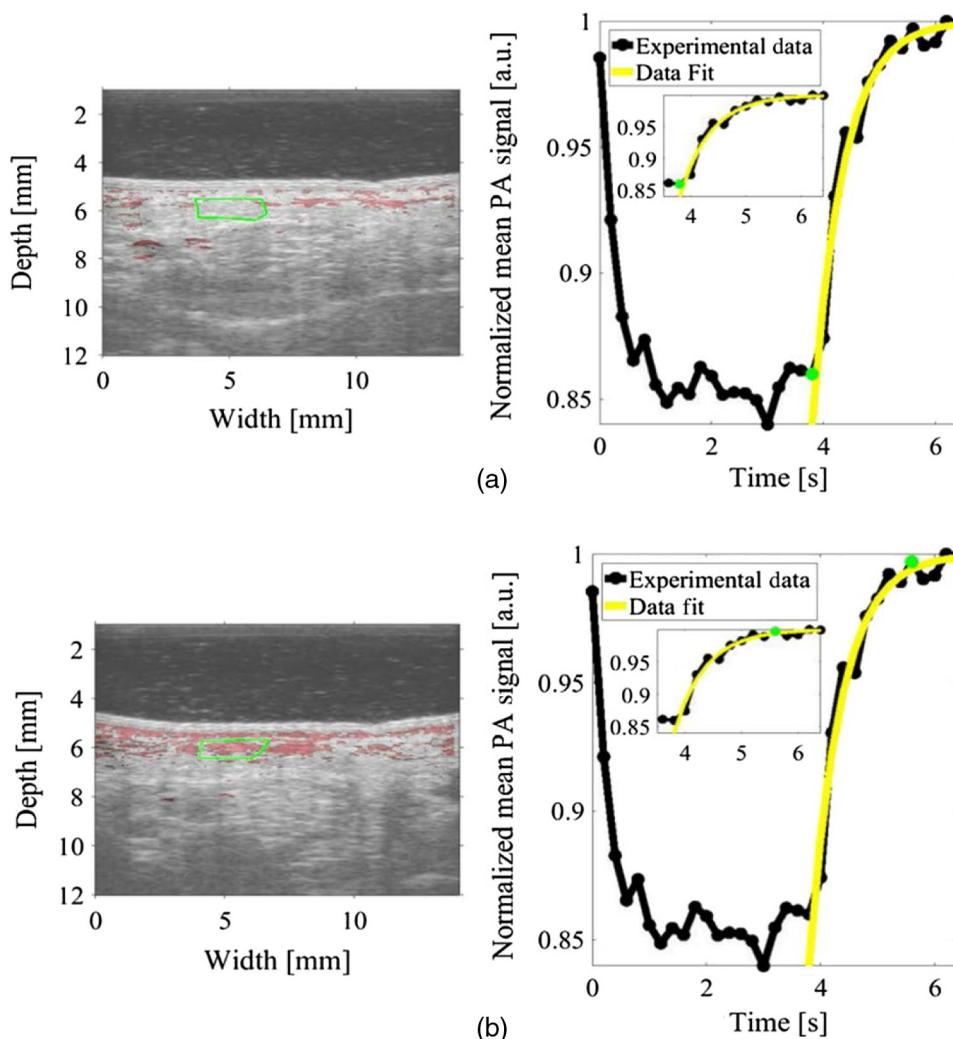
Fig. 4 The transformation of a sliding window (a) during slight relaxation and (b) full relaxation using displacement estimated by AM2D. The small plots within the large plots are magnified version of the large plot.
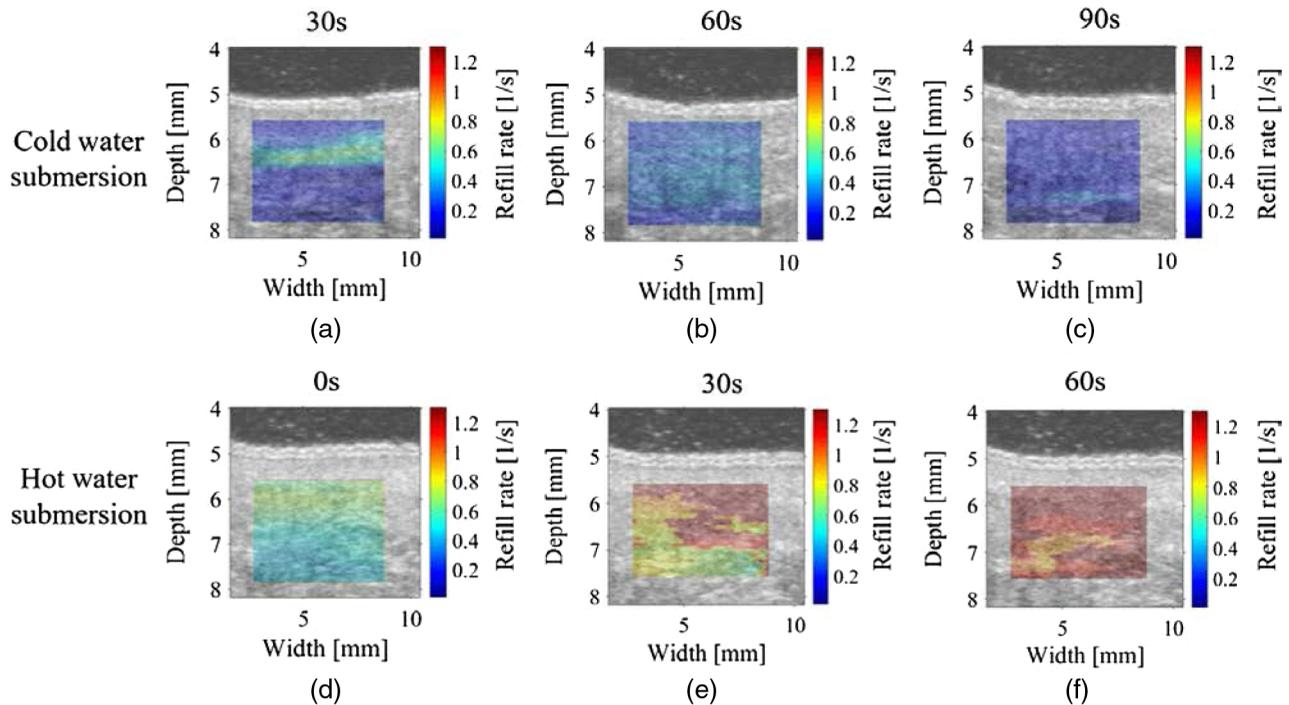
Fig. 5 The refill rate distribution of the left hand of a human subject in the (a)–(c) 4°C water bath for 30, 60, and 90 s, respectively, and (d)–(f) 45°C water bath for 0, 30, and 60 s, respectively. Times shown above each image denote the exposure time at the start of each C-R cycle. The size of sliding window is 4.24-mm wide and 0.78-mm long.

in Fig. 5. Clear differences in the perfusion-rates are seen between differing temperature exposure conditions as visualized by the red-to-blue colormaps with red and blue colors representing fast and slow refill rates, respectively. Here the size of the main ROI is 6.21-mm wide × 3.25-mm deep, and images in Fig. 5 had a sliding window size of 4.24 mm × 0.78 mm to detect changes in PA signal. To explore how window sizes affect perfusion-rate estimates as larger window for averaging tends to reduce effect of noise, additional window sizes of 2.83 mm × 0.78 mm, 1.41 mm × 0.78 mm, and 0.78 mm × 1.95 mm, respectively, are used and compared in Fig. 6. For 30, 60, and 90 s that the hand was submerged in the 4°C water bath, the mean refill rate constant ranges from 0.28 to 0.38 s^{-1},

0.29 to 0.34 s^{-1}, and 0.14 to 0.22 s^{-1}, respectively. In contrast, when the hand is submerged in a 45°C water bath for 0, 30, and 60 s, the mean refill rate constant ranges from 0.53 to 0.56 s^{-1}, 0.84 to 1.16 s^{-1}, and 1.15 to 1.59 s^{-1}, respectively, depending on window sizes. The mean refill rates are listed in Table 1. The exposure time shown in Fig. 6 denotes the start time for each C-R cycle. The standard deviation of the perfusion rates varies with window size and is smallest when the sliding window is 1.41 mm × 0.78 mm.

This article was corrected online on 1 February 2018. It appears correctly in print.