

## Erratum to: Postural change in volunteers: sympathetic tone determines microvascular response to cardiac preload and output increases

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Unfortunately, the last sentence of abstract's result section was omitted during publication process. The complete corrected abstract is given below.

#### Abstract

**Purpose** Microvascular perfusion may be a non-invasive indicator of fluid responsiveness. We aimed to investigate which of the microvascular perfusion parameters truly reflects fluid responsiveness independent of sympathetic reflexes.

**Methods** Fifteen healthy volunteers underwent a postural change from head up tilt (HUT) to the supine position, diminishing sympathetic tone, followed by a 30° passive leg raising (PLR) with unaltered tone. Prior to and after the postural changes, stroke volume (SV) and cardiac output (CO) were measured, as well as sublingual microcirculatory perfusion (sidestream dark field imaging), skin perfusion, and oxygenation (laser Doppler flowmetry and reflectance spectroscopy).

**Results** In responders (subjects with >10 % increase in CO), the HUT to supine change increased CO, SV, and pulse pressure, while heart rate, systemic vascular resistance, and mean arterial pressure decreased. Additionally, microvascular flow index, laser Doppler flow, and microvascular hemoglobin oxygen saturation and concentration also increased. During PLR, only CO, SV and sublingual functional capillary density increased in responders (>5 % increase in CO), whereas systemic vascular resistance decreased less than from HUT to supine.

**Conclusion** When preload and forward flow increase in association with a decrease in sympathetic activity, microvascular blood flow increases in the skin and in the sublingual area. When preload and forward flow increase with little to no change in sympathetic activity, only sublingual functional capillary density increases. Therefore, our results indicate that sublingual functional capillary density is the best parameter to use when evaluating fluid responsiveness independent of changes in sympathetic tone.

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