

A New Tool to Quantify the Microcirculatory Effects of (fluid) Resuscitation

Ever since the introduction of microcirculatory monitoring at the bedside, physicians and clinical investigators have had one wish: to instantly have an analysis of the microcirculation at the bedside.(1)

The fourth generation of MicroVision Medical's Automated Vascular Analysis (AVA) application makes this wish a reality. In less than 5 seconds after capturing 15 frames, the user will be presented results that include density and flow.

User Friendly and Instant Application:

The step by step software will guide the user to obtain high quality images by giving real-time feedback on light intensity, focus and stability. This allows for capturing of high quality patient data that is analyzed reliably.

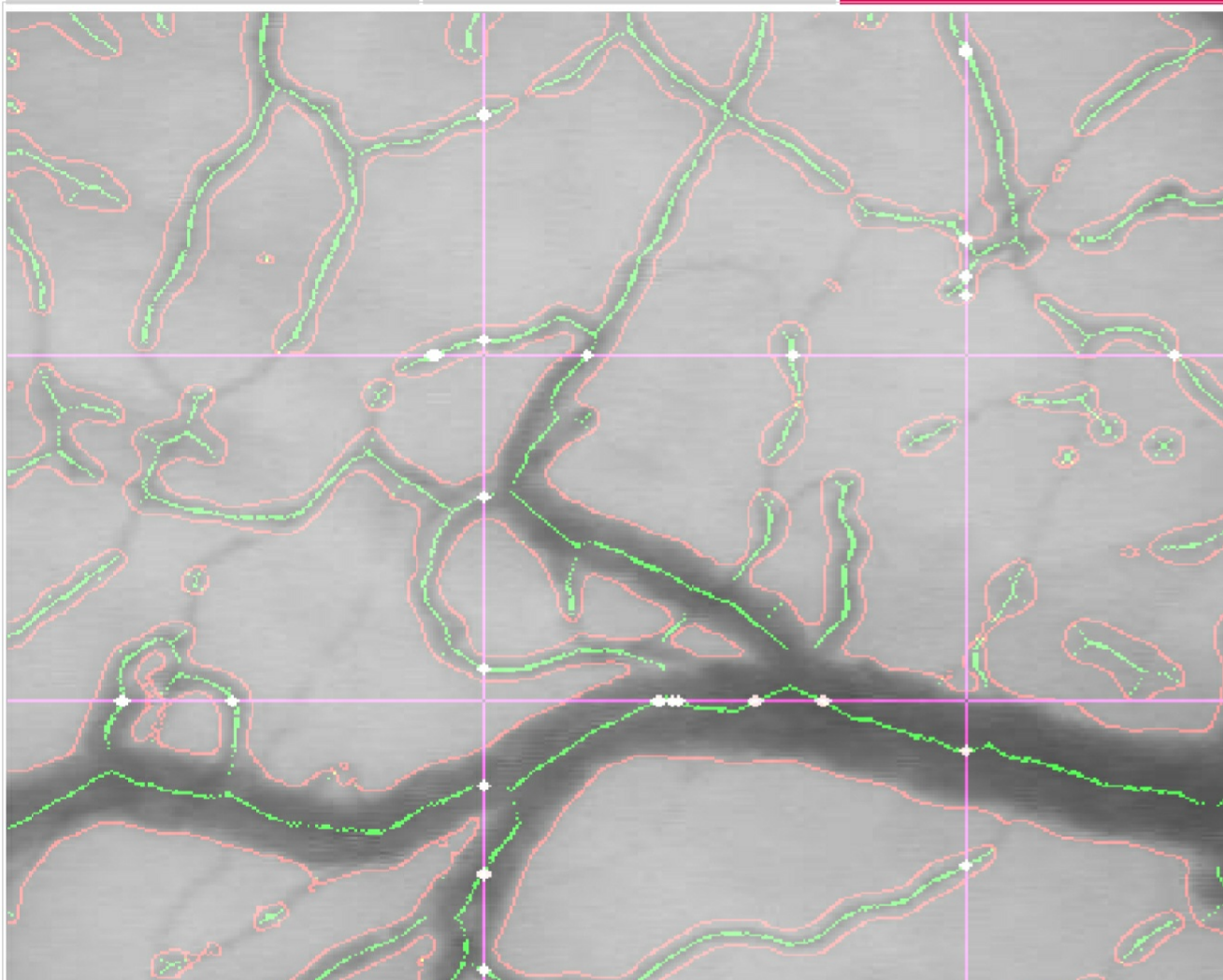
This latest version AVA is built from the ground up with user-friendliness in mind. The users' only decision is on which site in the patient to perform the measurement. The algorithms have been completely rewritten allowing for more detailed analysis and improved vessel detection. This increases the level of sensitivity for microvascular derangements.

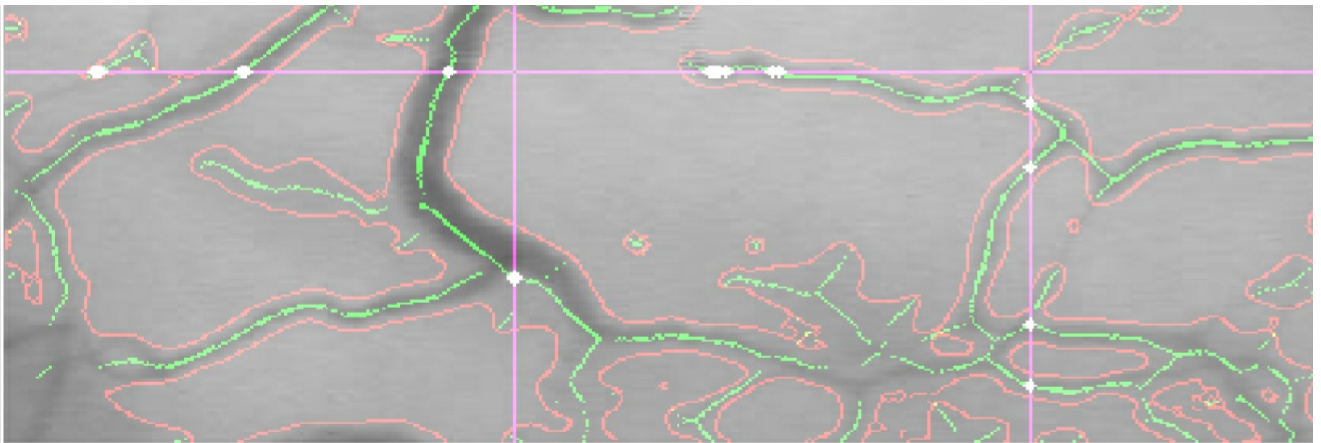
## AVA 4.0

Calibrate

Capture

Analysis





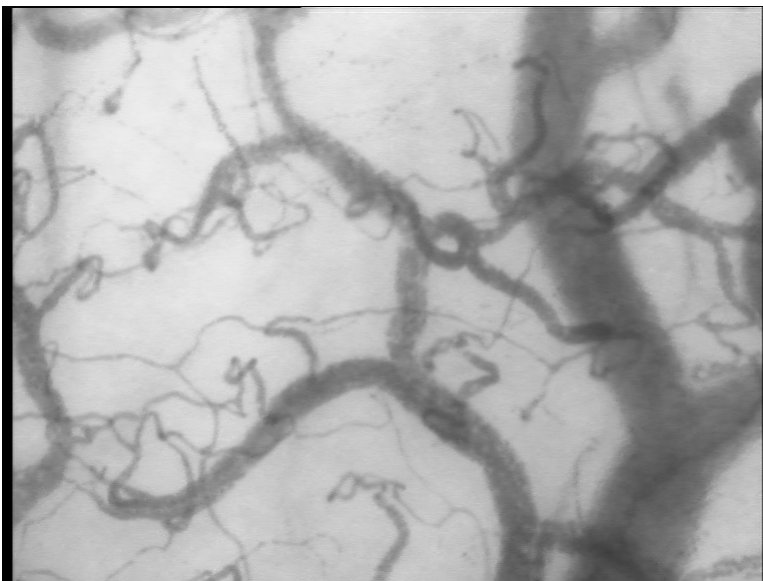
- |                                     |                            |                                     |                    |
|-------------------------------------|----------------------------|-------------------------------------|--------------------|
| <input type="checkbox"/>            | Highlight perfused Vessels | <input checked="" type="checkbox"/> | Show Centerlines   |
| <input checked="" type="checkbox"/> | Highlight all Vessels      | <input checked="" type="checkbox"/> | Show grid Crossing |

**All Key Microcirculation Parameters with One Press of the Button**

The measurements will present the user with a list of parameters which include the De Backer score as defined by Prof. De Backer in his paper "How to evaluate the microcirculation: report of a round table conference"(2):

- Total vascular density
- Small vessel density
- Proportion of perfused vessels (all)
- Proportion of perfused small vessels (PPV)
- Perfused vessel density (all)
- Perfused small vessel density (PVD)

Sublingual microcirculation visualised by the MicroScan



The density measurements will be both in number of crossings on a grid of six lines as well as based on (a proportion of) vessel length as described by Prof. De Backer. We expect the new AVA 4.0 package to help ICU physicians to deepen their understanding of the importance of the microcirculation during resuscitation of septic patients and in time fine-tune standard treatment by optimizing fluid therapy and use of vasopressor and inotropics. (3,4) All data is saved for future reference as well as exportable to .csv and Microsoft Excel for future reference and additional analysis.

Please visit MicroVision Medical at booth 79 at the 27 th Annual Congress of the European Society of Intensive Care Medicine at the CCIM in Barcelona for a live demonstration of AVA 4.0 and automatically analyze your own sublingual microcirculation.

The AVA 4.0 version can be ordered now for existing MicroScan systems. Contact the Micro-Vision Medical Head office at +31 20 566 5425 or mail to [upgrade@microvisionmedical.com](mailto:upgrade@microvisionmedical.com).

For more information: [www.microvisionmedical.com](http://www.microvisionmedical.com)

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