Letters To The Editor

Commentary on Viewpoint: The human cutaneous circulation as a model of generalized microvascular function

Lars Edvinsson and Sven E. Andersson
Institute of Clinical Science, Lund University Hospital, Lund, Sweden

TO THE EDITOR: Because of their accessibility, cutaneous microvessels are suitable for mechanistic studies on vascular dysfunction. These examinations are associated with negligible discomfort for the study person and could perhaps, in the future, be used for cardiovascular risk determination. The studies of deficits in thermoregulatory function presented here are good examples on how such studies can be performed (4). The cutaneous vessels are effector organs for thermoregulation. The situation becomes more complicated when the skin is used as a surrogate circulatory bed. The underlying assumption is then that vascular dysfunction is a general phenomenon in a systemic disease process. This needs not always be true and the relevance of the surrogate needs to be critically examined. The impairment might not be uniformly distributed (2) and there could also be changes over time; for example we have found that patients with advanced atherosclerotic manifestations do not always have cutaneous vascular impairment.

As the authors point out, the vascular reactivity is an integrated net response induced by a number of pathways. In many cases dysfunction is tightly associated with inflammation (1, 3). This gives both problems and opportunities since the characteristics of inflammation are variable. It could thus be that not all inflammatory conditions might be associated with vascular dysfunction and that some cases (inflammation not associated with increased cardiovascular risk) will temporarily reduce the vascular reactivity. It is our belief that there is a need to compare with several other vascular beds to make a general statement.

REFERENCES

Address for reprint requests and other correspondence: L. Edvinsson, Dept. of Medicine, Univ. Hospital, Lund, Sweden 22185 (e-mail: lars.edvinsson@med.lu.se).