

EDITORIAL

(Reprinted from BIORHEOLOGY 24, 285-286, 1987)

PERIHEMORHEOLOGY RATHER THAN PARAHMORHEOLOGY

Alfred L. Copley

Laboratory of Biorheology, Polytechnic University
Brooklyn, New York 11201, USA

Two years ago I introduced the term parahemorheology (1-5) in order to distinguish the rheology in the perivascular spaces, across the parenchymal cell membranes, and that of the lymph, its channels or lymphatics and their walls from the rheology of the vessel-blood organ (6), its constituents and the processes involved in both its two portions as well as in their interrelations (1).

However, the use of the term parahemorheology has been criticized, because the prefix para implies that the rheology of fluids and structures in the perivascular spaces is secondary and less important than that of the vessel-blood organ. It is also imprecise, once it does not refer to the fluids and structures being considered. By contrast, the term perihemorheology implies the rheology of fluids and structures in the perivascular spaces, because the Greek prefix peri means around, encircling, or surrounding.

Perihemorheology can likewise be considered as an abbreviation of two fields of biorheology in close contact, viz., hemorheology and the rheology occurring in the perivascular spaces. The term perihemorheology thus implies also the exchanges of rheological processes between the vessel-blood organ and its surrounding tissues, as well as in reverse.

REFERENCES

1. COPLEY, A.L. The history of clinical hemorheology. Clinical Hemorheol., 5, 765-812, 1985; 6, 165, 1986.
2. COPLEY, A.L. Biorheology, Western medicine and acupuncture. Acupuncture and Electro-Therapeutics Res., Int. J., 10, 279-296, 1985.
3. COPLEY, A.L. Endoendothelial fibrin(ogenin) lining: The interface between the two portions of the 'vessel-blood organ'. In: S. Seno, A.L. Copley, M.A. Venkatachalam, Y. Hamashima and T. Tsujii (Eds.), Satellite Symposium of the Third International Cell Biology Congress, Kurashiki, Japan, 1984. Glomerular Dysfunction and Biopathology of Vascular Wall. Tokyo-New York-London: Academic Press, pp. 59-86, 1985.
4. COPLEY, A.L. Transport transcapillaire et parahémorhéologie. In: J.F. Stoltz, M. Donner and E. Puchelle (Eds.), Techniques en biorhéologie. Séminaire INSERM, 143, pp. 11-33, 1986.
5. COPLEY, A.L. Hemorheological and perihemorheological aspects of the vessel-blood organ affecting ischemia. In: A. Hartmann and W. Kuschinsky (Eds.), Cerebral Ischemia and Hemorheology. An International Workshop, 18-21 June 1986, Rottach-Egern, Tegernsee, F.R. Germany. Berlin-Heidelberg-New York, Springer-Verlag, 1987, in press.
6. COPLEY, A.L. The future of the science of biorheology. Biorheology, 19, 47-69, 1982.