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CLINICAL HEMORHEOLOGY - LITERATURE SURVEY

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ADAMS, P.C.*, FUSTAR, V., BADIMON, L., BADIMON, J.J. and CHESEBRO, J.H. Platelet/vessel wall interactions, rheologic factors and thrombogenic substrate in acute coronary syndromes: preventive strategies. **Am. J. Cardiol.** 60: 9G-16G, 1987.

Key words: blood platelets, coronary disease, thrombosis, blood flow velocity, review

Address for reprints: Mount Sinai School of Medicine, City University of New York, New York 10029, USA.

BARNES, H.J. Blood rheology in diabetes mellitus. **Acta Med. Port.** 7: 36-39, 1986.

Key words: blood viscosity, diabetes mellitus, rheology, erythrocyte deformability

Address for reprints: Barnet General Hospital, Welhouse Lane, Barnet, Herts, U.K.

BRUCKNER, G.*, WEBB, P., GREENWELL, L., CHOW, C. and RICHARDSON, D. Fish oil increases peripheral capillary blood cell velocity in humans. **Atherosclerosis** 66: 237-245, 1987.

Key words: blood flow velocity, omega-3-fatty acids, blood viscosity

Address for reprints: Department of Clinical Nutrition, University of Kentucky, Lexington 40536, USA.

CURATOLA, G.*, FERRETTI, G., BERTOLI, E., DOTTI, M., BARTOLOTTA, E. and GIORGI, P. Changes of membrane fluidity in erythrocytes of obese children: a spin label study. **Pediatr. Res.** 22: 141-144, 1987.

Key words: erythrocyte membrane, obesity, spin label

Address for reprints: Istituto di Biochimica, Facolta di Medicina e Chirurgia, Ancona, Italy.

DINTENFASS, L. The cause of death: blood hyperviscosity? (Letter). **J. R. Soc. Med.** 80: 536-537, 1987.

Key words: blood viscosity, death, human, rheology

Address for reprints: Kanematsu Memorial Institute, Sydney Hospital, Sydney 2000, Australia.

DODSON, R.A.*, HINDS, T.R. and VINCENZI, F.F. Effects of calcium and A23187 on deformability and volume of human red blood cells. **Blood Cells** 12: 555-564, 1987.

Key words: calcium, erythrocyte deformability, calcium stress

Address for reprints: Department of Pharmacology, School of Medicine, University of Washington, Seattle, USA.

DODSON, R.A.* and VINCENZI, F.F. Preliminary evidence for decreased red blood cell deformability during blood storage. **Proc. West. Pharmacol. Soc.** 30: 117-119, 1987.

Key words: blood preservation, erythrocyte deformability, transfusion

Address for reprints: College of Pharmacy, Idaho State University, Pocatello 83209, USA.

ERNST, E. Physical exercise for peripheral vascular disease - a review. **VASA** 16: 227-231, 1987.

Key words: exercise, intermittent claudication, review, rheology

Address for reprints: Hemorheology Research Laboratory, Department of Physical Medicine, University of Munich, Ziemssenstr. 1, 8000 Munich 2, FRG.

EVANS, E.A.* and MOHANDAS, N. Membrane-associated sickle hemoglobin: a major determinant of sickle erythrocyte rigidity. **Blood** 70: 1443-1449, 1987.

Key words: anemia, erythrocyte membrane, hemoglobin, rheology

Address for reprints: Department of Pathology, University of British Columbia, Vancouver, Canada.

FOULDS, W.S. 50th Bowman lecture. "Blood is thicker than water". Some haemorheological aspects of ocular disease. **Eye** 1: 343-363, 1987.

Key words: eye diseases, blood viscosity, diabetic retinopathy, hyperlipidemia, leukemia, retinal vein occlusion, venous insufficiency

Address for reprints: Tennent Institute of Ophthalmology, Western Infirmary, Glasgow, UK.

FREYBURGER, G.*, LARRUE, F., MANCIET, G., LORIENT-ROUDAUT, M.F., LARRUE, J. and BOISSEAU, M.R. Hemorheological changes in elderly subjects - effect of pentosan polysulfate and possible role of leukocyte arachidonic acid metabolism. **Thromb. Haemost.** 57: 322-325, 1987.

Key words: aging, arachidonic acids, leukocytes, pentosan polysulfuric polyester, blood cell count, blood circulation, blood viscosity, hematocrit

Address for reprints: INSERM U.8, Bordeaux, France.

FUCHS, J., WEINBERGER, I., TEBOUL, A., ROTENBERG, Z., JOSHUA, H. and AGMON, J.* Plasma viscosity and haematocrit in the course of acute myocardial infarction. **Europ. Heart J.** 8: 1195-1200, 1987.

Key words: plasma viscosity, haematocrit, myocardial infarction

Address for reprints: Massada Center for Heart Disease, Beilinson Medical Center, Petah Tikva 49100, Israel.

GUILLE, J.*, RAISON, J.K. and GEBICKI, J.M. Radiation-induced lipid peroxidation and the fluidity of erythrocyte membrane lipids. **Free Radic. Biol. Med.** 3: 147-152, 1987.

Key words: erythrocyte membrane, lipid peroxides, membrane fluidity, radiation

Address for reprints: School of Biological Sciences, Macquarie University, Sydney, NSW, Australia.

HALL, D.W.* and VAN DEN HOVEN, W.E. Influence of cyclandelate on in vitro red blood cell deformability. **Drugs** 33: 30-40, 1987.

Key words: erythrocyte deformability, mandelic acids, adenosine triphosphate, blood viscosity, calcium

Address for reprints: Department of Biological Research, Gist-brocades N.V., Delft, The Netherlands.

HARDEMAN, M.R.*, GOEDHART, P. and BREEDERVELD, D. Laser diffraction ellipsometry of erythrocytes under controlled shear stress using a rotational viscosimeter. **Clin. Chim. Acta** 165: 227-234, 1987.

Key words: blood viscosity, erythrocyte deformability, erythrocyte aggregation, laser, osmolar concentration

Address for reprints: Department of Internal Medicine and Clinical Chemistry, University Hospital, Amsterdam, The Netherlands.

JAKOET, A.*, MARTELL, R.W., and JACOBS, P. Plasma viscosity changes after sham plasmapheresis (Letter). **Lancet** 1031-1032, 1987.

Key words: plasma viscosity, plasmapheresis, hemodilution

Address for reprints: MRC Clinical Psychiatry Research Unit, Groote Schuur Hospital, Dept. of Psychology, Observatory 7925, Cape Town, South Africa.

KON, K.*, MURAKAMI, J., OKAZAKI, M. and SHIGA, T. A novel method for measuring the erythrocyte deformability, under oscillatory shear stress. **Jpn. J. Physiol.** 37: 337-340, 1987.

Key words: erythrocyte deformability, hematologic tests, oscillometry

Address for reprints: Department of Physiology, Ehime University, School of Medicine, Japan.

KURANTSIN-MILLS, J.*, JACOBS, H.M., KLUG, P.P. and LESSIN, L.S. Flow dynamics of human sickle erythrocytes in the mesenteric microcirculation of the exchange-transfused rat. **Microvasc. Res.** 34: 152-167, 1987.

Key words: abnormal erythrocytes, sickle cell anemia, regional blood flow, rheology

Address for reprints: Department of Medicine, George Washington University Medical Center, Washington, D.C. 20037, USA.

KUZIN, V.M. and KOLESNIKOVA, T.I. Elastichnost' eritrotsitov i metabolizm gazov u bol'nykh s ishemicheskim insultom (Erythrocyte elasticity and gas metabolism in ischemic stroke patients). **Zh. Nevropatol. Psikiatr.** 87: 1002-1007, 1987.

Key words: cerebral ischemia, erythrocyte deformability, oxygen, cerebral arteriosclerosis (English abstract)

No address available.

LEBEDEVA, N.V. and IBRAGIMOVA, L.N. Morfologicheskie svoistva eritrotsitov i ikh deformiruemost' pri narusheniakh mozgovogo krovoobrashcheniia u vol'nykh s arterial'noi gipertenziei (Morphological properties of erythrocytes and their deformability in cerebral circulatory disorders in patients with arterial hypertension). **Zh. Nevropatol. Psikiatr.** 87: 1007-1012, 1987.

Key words: cerebrovascular disorders, erythrocyte deformability, hypertension, blood viscosity (English abstract)

No address available.

LECHNER, H.*, OTT, E. and SCHMIDT, R. Present state of hemorheology. **Gerontology** 33: 259-264, 1987.

Key words: cerebrovascular disorders, cerebrovascular circulation, review
Address for reprints: Department of Psychiatry and Neurology, University of Graz, Austria.

LEY, K.* and GAEHTGENS, P. Mikrozirkulationsstörungen im Schock (Microcirculation disorders in shock). **Klin. Anästhesiol. Intensivther.** 33: 19-36, 1987.

Key words: microcirculation, shock, rheology, review

Address for reprints: Inst. Physiologie, Arnimallee 22, 1000 Berlin 33, FRG.

MCMILLAN, D.E.*, STRIGBERGER, J. and UTTERBACK, N.G. Rapidly recovered transient flow resistance: a newly discovered property of blood. **Am. J. Physiol.** 253: H919-926, 1987.

Key words: blood flow velocity, vascular resistance, blood viscosity, rheology

Address for reprints: Hal B. Wallis Research Facility, Eisenhower Medical Center, Rancho Mirage, California 92270, USA.

MEADE, T.W.*, IMESON, J. and STIRLING, Y. Effects of changes in smoking and other characteristics on clotting factors and the risk of ischaemic heart disease. **Lancet** 986-988, 1987.

Key words: fibrinogen, cardiovascular risk factors

Address for reprints: MRC Epidemiology and Medical Care Unit, Northwick Park Hospital, Harrow, Middlesex HA1 3UJ, UK.

MÜLLER, R.* and MUSIKIC, P. Hemorheology in surgery - a review. **Angiology** 38: 581-592, 1987.

Key words: postoperative complications, thromboembolism, pentoxifylline, blood coagulation, blood viscosity

Address for reprints: Clinical Research Department, Hoechst AG Werk Albert, Wiesbaden, FRG.

MURAKAMI, J. Changes of erythrocyte deformability induced by calcium accumulation and calmodulin inhibitors. **Nippon Seirigaku Zasshi** 49: 119-133, 1987.

Key words: calcium, erythrocyte deformability (English abstract)

Address for reprints: 2nd Department of Physiology, School of Medicine, Ehime University, Japan.

NICOLAIDES A.N. Haemodynamic and rheological aspects of vascular grafts. **Acta Chir. Scand.** 538: 12-17, 1987.

Key words: hemodynamics, rheology, graft occlusion, thrombosis, transplantation, vascular resistance

Address for reprints: Department of Vascular Surgery, St. Mary's Hospital Medical School, London, UK.

OKA, S. Rheology of erythrocyte sedimentation. **Nippon Rinsho** 45: 1127-1135, 1987.

Key words: blood sedimentation, erythrocyte aggregation, erythrocyte deformability, hematocrit

Address for reprints: University Medical School, Tokyo, Japan.

REINHART, W.H., CHABANEL, A., VAYO, M. and CHIEN, S.* Evaluation of a filter aspiration technique to determine membrane deformability. **J. Lab. Clin. Med.** 110: 483-494, 1987.

Key words: erythrocyte deformability, filtration, microscopy, scanning

Address for reprints: Department of Physiology, Columbia University, College of Physicians and Surgeons, New York, NY 10032, USA.

REINHART, W.H. and CHIEN, S.* The time course of filtration test as a model for microvascular plugging by white cells and hardened red cells. **Microvasc. Res.** 34: 1-12, 1987.

Key words: erythrocyte deformability, filtration, microcirculation, blood flow velocity, hematocrit

Address for reprints: as above

REINKE, W.*, GAEHTGENS, P. and JOHNSON, P.C. Blood viscosity in small tubes: effect of shear rate, aggregation, and sedimentation. **Am. J. Physiol.** 253: 540-547, 1987.

Key words: blood viscosity, cell aggregation, erythrocyte deformability, rheology

Address for reprints: Department of Physiology, Freie Universität Berlin, FRG.

SECOMB, T.W. Flow-dependent rheological properties of blood in capillaries. **Microvasc. Res.** 34: 46-58, 1987.

Key words: blood flow velocity, rheology, blood viscosity, erythrocyte deformability

Address for reprints: Department of Physiology, University of Arizona, Tucson 85724, USA.

SIMCHON, S., JAN, K.M. and CHIEN, S.* Influence of reduced red cell deformability on regional blood flow. **Am. J. Physiol.** 253: ZH898-903, 1987.

Key words: erythrocyte deformability, blood viscosity, microcirculation, pulmonary circulation

Address for reprints: Department of Physiology and Cellular Biophysics, Columbia University, College of Physicians and Surgeons, New York, NY 10032, USA.

SOLERTE, S.B.* and FIORAVANTI, M. Hemodynamic alterations in longterm insulin-dependent diabetic patients with overt nephropathy: role of blood hyperviscosity and plasma protein changes. **Clin. Nephrol.** 28: 138-143, 1987.
Key words: blood proteins, insulin-dependent diabetes mellitus, erythrocyte deformability, fibrinogen
Address for reprints: Department of Internal Medicine and Medical Therapy, University of Pavia, Italy.

SPENCE, J.D. Hypertension and atherosclerosis: effects of antihypertensive drugs on arterial flow patterns. **J. Cardiovasc. Pharmacol.** 10: 112-116, 1987.
Key words: adrenergic beta receptor blockaders, arteriosclerosis, hypertension, rheology, risk factors
Address for reprints: Department of Medicine, University of Western Ontario, London, Canada.

STRONG, A.B.*, STUBLEY, G.D., CHANG, G. and ABSOLOM, D.R. Theoretical and experimental analysis of cellular adhesion to polymer surfaces. **J. Biomed. Mater. Res.** 21: 1039-1055, 1987.
Key words: cell adhesion, erythrocytes, platelet adhesiveness, rheology
Address for reprints: Department of Mechanical Engineering, University of Waterloo, Ontario, Canada.

TEITEL, P. The contribution of haemorheology to the understanding of microcirculatory disorders. An introductory overview. **Drugs** 33: 5-11, 1987.
Key words: blood viscosity, microcirculation, vascular diseases, erythrocyte aggregation, erythrocyte deformability
Address for reprints: Abteilung Physiologie, Medizinische Fakultät, RWTH Aachen, Neues Klinikum, FRG.

TULLI, D., GRASSI, W. and CERVINI, C. La deformabilità eritrocitaria nell'artrite reumatoide (Erythrocyte deformability in rheumatoid arthritis). **Boll. Soc. Ital. Biol. Sper.** 63: 501-507, 1987.
Key words: rheumatoid arthritis, erythrocyte deformability (English abstract)
No address available.

VALENTINO, M., GOVERNA, M., ROCCO, M., ZOLESE, G., BERTOLI, E. and FIORINI, R.M. Modification of erythrocyte membrane fluidity in rats exposed to 2,5-hexanedione. **Boll. Soc. Ital. Biol. Sper.** 63: 629-633, 1987.
Key words: ketones, membrane fluidity, erythrocyte membrane, nervous system diseases
No address available.

VICAUT, E.*, STUCKER, O., TEISSEIRE, B. and DUVELLEROY, M. Effects of changes in systemic hematocrit on the microcirculation in rat cremaster muscle. **Int. J. Microcirc.** 6: 225-235, 1987.
Key words: capillaries, hematocrit, blood flow velocity, microcirculation, rheology
Address for reprints: Laboratoire de Biophysique, Hopital F. Widal, Paris, France.