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## CLINICAL HEMORHEOLOGY - LITERATURE SURVEY

Editor: E. Ernst

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ALEKSIJEVIC, A.\*, CREMEL, G., MUTET, C., GIRON, C., HUBERT, P., WAKSAMN, A., FALKENRODT, A., LBERLING, F., MAYER, S. and LANG, J.M. Decreased membrane "fluidity" of T lymphocytes from untreated patients with Hodgkin's disease. *Leuk. Res.* 10: 1477-1484, 1986.

Key words: leukocyte rheology, plasma membrane microviscosity, drug effects, cholesterol, fluorescence polarization, prostaglandin E2

Address for reprints: Laboratoire, d'Immunologie Cellulaire du Centre de Transfusion Sanguine, Strasbourg, France.

ANDREOZZI, G.M.\*, SIGNORELLI, S., MARTINI, R., PALAZZO, V., GAROZZO, G., SCIUTO, V., CASTORINA, L. and MUSUMECI, S. Effetti protettivi del mesoglicansolfato sulla trombogenesi venosa (Protective effect of mesoglycan sulfate in venous thrombogenesis). *Minerva Med.* 77: 1883-1886, 1986.

Key words: red cell deformability, thrombophlebitis (English abstract)

Address for reprints: Universita di Catania Cattedra di Angiologia, Italy.

BENEDETTI, A.\*, BIRARELLI, A.M., BRUNELLI, E., CURATOLA, G., FERRETTI, G., JEZEQUEL, A.M. and ORLANDI, F. Effect of chronic ethanol abuse on the physico-chemical properties of erythrocyte membranes in man. *Pharmacol. Res. Commun.* 18: 1003-1014, 1986.

Key words: alcoholism, fluorescence polarization, liver function, methyltetrahydrofolate

Address for reprints: Post Graduate School of Gastroenterology, Institute of Biochemistry, University of Ancona, Italy.

BERLINER, S., CASPI, D., NEUMAN, Y., OSTFELD, I., HOD, M., YARON, M., PINKHAS, J. and ARONSON, M.\* Aggregation of white cells and C-reactive protein: relation between these two indices in acute phase reaction. **J. Clin. Pathol.** 40: 103-106, 1987.

Key words: inflammation, leukocytes, microcirculation

Address for reprints: Department of Cell Biology, Sackler Faculty of Medicine, Tel Aviv University, 69978 Tel Aviv, Israel.

BOGIN, E.\*, EARON, Y. and BLUM, M. Effect of parathyroid hormone and uremia on erythrocyte deformability. **Clin. Chim. Acta** 161: 293-299, 1986.

Key words: drug effects, calcium, human, Verapamil

Address for reprints: Department of Biochemistry, Kimron Institute, Bet-Dagan, Israel.

BOISSEAU, M.R.\*, FREYBURGER, G. and LORIENT-ROUDAUT, M.F. Factors influencing in vitro sieving of blood in cerebrovascular accidents. Clinical significance and therapeutic strategy. **Klin. Wochenschr.** 64: 1053-1057, 1986.

Key words: cerebral embolism and thrombosis, hematocrit, arteriosclerosis

Address for reprints: Hopital Cardiologique, Université de Bordeaux II, France.

BORN, G.V. Haemorheological influences on platelet thrombogenesis. **Klin. Wochenschr.** 64: 1050-1053, 1986.

Key words: carotid artery thrombosis, cerebral embolism and thrombosis, coronary thrombosis

Address for reprints: Department of Pharmacology, King's College, London, United Kingdom.

CHEN, H.Q. Effect of hematocrit on thixotropic properties of whole human blood. **Hua Hsi I Ko Ta Hsueh Hsueh Pao** 17: 117-120, 1986.

Key words: structural viscosity of blood (English abstract)

No address available.

DIKUSHINA, E.A., DZHIVELEGOVA, G.D. and KOKOLINA, V.F. Reologicheskie i koaguliatsionnye svoistava krovi u devochek s disfunktsional'nymi matochnymi krvotecheniyami (Rheological and coagulative properties of the blood in girls with dysfunctional uterine hemorrhage). **Akush. Ginekol. (Mosk.)** 7: 53-56, 1986.

Key words: gynecology, hemorrhage (English abstract)

No address available.

DRENCKHAHN, D.\*, GRESS, T. and FRANKE, R.P. Vascular endothelial stress fibres: their potential role in protecting the vessel wall from rheological damage. **Klin. Wochenschr.** 64: 986-988, 1986.

Key words: biomechanics, contractile proteins, intercellular junctions, microfilaments

Address for reprints: Institut für Anatomie und Zellbiologie, Universität Marburg, FRG.

EHRLY, A.M. Erythrocyte aggregation in clinical medicine. **Klin. Wochenschr.** 64: 1081-1084, 1986.

Key words: fibrinogen, microcirculation, regional blood flow

Address for reprints: Abteilung Innere Medizin, Angiologie, J.-W.-Goethe-Universität, Frankfurt, FRG.

ENGSTROEM, K.G.\* and TAEIJEDAL, I.B. Decreased deformability of erythrocytes in hyperglycaemic non-inbred ob/ob mice. **Diabetologia** 29: 661-666, 1986.

Key words: erythrocyte deformability, hyperglycemia, diabetes, red cell filtration

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Key words: hemodilution, vincamin, cochlea, deafness (English abstract)

Address for reprints: Krankenhaus der Stadt Wien-Lainz, Austria.

ERNST, E. Kontrolle kardiovaskulärer Risikofaktoren als hämorrheologisches Therapieprinzip (Control of cardiovascular risk factors as a principle of hemorrheological treatment). **Herz und Gefäße** 7: 18-26, 1987.

Key words: cardiovascular risk factors, hypertension, hyperlipoproteinemia, smoking, obesity, diabetes, stress, lack of exercise, treatment, cardiovascular system (English abstract)

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

ERNST, E. Die Schädlichkeit des Zigarettenrauchens aus hämorrheologischer Sicht (The harmfulness of cigarette smoking from a hemorrheological point of view). **Ztschr. f. Allgemeinmed.** 63: 82-87, 1987.

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Key words: myocardial infarction, stroke, peripheral vascular disease, population study, epidemiology (English abstract)

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Key words: filtration, leukocyte rheology

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Key words: stroke rehabilitation, microcirculation, filtration, leukocyte adhesion, leukocyte deformability

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Key words: erythrocyte deformability, erythrocyte membrane, hematology, historical article

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

FAGRELL, B. Clinical studies of skin microcirculation. **Klin. Wochenschr.** 64: 943-946, 1986.

Key words: capillaries, flowmeters, microscopy

Address for reprints: Karolinska Institutet, Department of Medicine, Danderyd Hospital, Stockholm, Sweden.

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Key words: blood coagulation, contractile proteins

Address for reprints: Abteilung Pathologie, RWTH Aachen, FRG.

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Key words: calcium metabolism, erythrocyte deformability, adenosine triphosphate (English abstract)

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Key words: drug treatment, in vitro, in vivo, filtration

Address for reprints: Laboratory of Clinical Biochemistry, St. Luc Hospital, Avenue Hippocrate 10, 1200 Brussels, Belgium.

GROTTA, J.C. Can raising cerebral blood flow improve outcome after acute cerebral infarction? **Stroke** 18: 264-267, 1987.

Key words: cerebral circulation, hematocrit, blood viscosity, hemodilution, oxygen delivery

Address for reprints: Department of Neurology, University of Texas Medical School, Houston 77225, USA.

GROTTA, J.C.\*, MANNER, C., PETTIGREW, L.C. and YATSU, F.M. Red blood cell disorders and stroke. **Stroke** 17: 811-817, 1986.

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Key words: blood volume, erythrocyte aggregation, hematocrit

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Key words: drug effects, ischemia, superoxide dismutase, xanthine oxidase

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Address for reprints: Department of Surgery, Academic Hospital Maastricht, University of Limburg, The Netherlands.

JUHAN-VAGUE, I.\*, ROUL, C., RAHMANI-JOURDHEIL, D., MISHAL, Z., DRISS, F., DURAND-GASSELIN, M., AILLAUD, M.F. and VAGUE, P. Rapid modifications of biophysical and biochemical parameters of red blood cell membrane from insulin dependent diabetics after insulin administration. **Klin. Wochenschr.** 64: 1046-1049, 1986.

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Key words: microcirculation, erythrocyte aggregation, erythrocyte deformability  
Address for reprints: Abteilung für Klinische Hämostaseologie und Transfusionsmedizin, Universität des Saarlandes, Homburg/Saar, FRG.

KEATINGE, W.R.\*, COLESHAW, S.R.K., EASTON, J.C., COTTER, F., MATTOCK, M.B. and CHELLIAH, R. Increased platelet and red cell counts, blood viscosity, and plasma cholesterol levels during heat stress, and mortality from coronary and cerebral thrombosis. **Am. J. Med.** 81: 795-800, 1986.

Key words: heat exposure, epidemiology, cardiovascular disease  
Address for reprints: Department of Physiology, London Hospital Medical College, Turner Street, London E1 2AD, England.

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Key words: epidemiology, circulatory diseases (English abstract)

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Key words: blood flow velocity, coronary disease, flowmeters

Address for reprints: Department of Medicine, University of Tasmania, Hobart, Australia.

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Key words: filtration method, red cell deformability (English abstract)

Address for reprints: Institut für Medizinische Physik und Biophysik, Bereich Medizin der Universität, 1040 Berlin, GDR.

KUZNETSOV, V.P.\*, DZHIVELEGOVA, G.D., MIASNIKOVA, T.G. and SHALINA, R.I. Reologicheskie i koaguliatsionnye narusheniia u rodil'nits s patologicheskoi krovopoterei (Rheologic and coagulation disorders in the puerpera with pathologic blood loss). *Akush. Ginekol. (Mosk.)* 20-24, 1986.

Key words: blood coagulation, hemorrhage, postpartum, pregnancy (English abstract)

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Key words: microcirculation, leukocyte rheology, flow resistance, leukocyte adherence

Address for reprints: Box Biophysics Medical Center, 601 Elmwood Ave., Rochester, NY 14642, USA.

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Key words: erythrocyte deformability, newborn, premature, erythrocyte indices

Address for reprints: Department of Pediatrics, University of Heidelberg, FRG.

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Key words: fibrinogen, blood viscosity, intermittent claudication, platelet aggregation, smoking

Address for reprints: Department of Medicine, Royal Infirmary, Glasgow, United Kingdom.

MASUDA, M.\*, KURIKI, H., KOMIYAMA, Y., NISHIKADO, H., EGAWA, H. and MURATA, K. Measurement of membrane fluidity of polymorphonuclear leukocytes by flow cytometry. **J. Immunol. Methods** 96: 225-231, 1987.

Key words: decanoic acids, flow cytometry, membrane fluidity, drug effects, fluorescence polarization, microscopy

Address for reprints: Department of Clinico-laboratory Medicine, Kansai Medical University, Osaka, Japan.

MATRAI, A., ERNST, E.\*, STÖHR, P. and PAULSEN, F. Beziehungen zwischen Leukozytenzahl und körperlicher Leistung bei untrainierten Freiwilligen (Relationship between white cell count and physical performance in untrained volunteers). **Z. Phys. Med. Baln. Med. Klim.** 15: 424-426, 1986.

Key words: exercise, leukocyte rheology, muscle perfusion

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

MATRAI, A.\* and KOLLAR, L. Importance of the preoperative haemoglobin concentration in arterial surgery. **Eur. Surg. Res.** 19: 1-5, 1987.

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Address for reprints: Department of Internal Medicine, Hospital Clinico, Madrid, Spain.

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Key words: blood circulation, human models, cardiovascular

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Address for reprints: Abteilung V, HNO, Bundeswehrkrankenhaus Ulm, FRG.

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Key words: blood sedimentation, blood viscosity, fibrinogen

Address for reprints: Department of Physiology and Biophysics, St. Mary's Hospital Medical School, London, United Kingdom.

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Key words: red cell morphology, red cell destruction, aspiration, filtration, oxidative damage, in vitro

Address for reprints: Department of Physiology, Columbia-Presbyterian Medical Center, 630 W 168th St., New York NY 10032, USA.

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Key words: erythrocyte deformability, calcium metabolism, cell survival, chlorpromazine, microscopy

Address for reprints: Department of Internal Medicine, Inselspital, University of Bern, Switzerland.



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Address for reprints: Department of Thoracic and Cardiovascular Surgery, University of Goeteborg, Sweden.

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Key words: body weight, diabetes mellitus, hyperlipidemia, hypertension, smoking.

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Key words: peripheral vascular disease, pentoxifylline

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Key words: ophthalmology, microcirculation (English abstract)

Address for reprints: Abt. Physiologie, Universität Aachen, FRG.

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Key words: blood coagulation, pulsatile flow, arterial occlusive diseases, physiopathology, blood platelets, endothelium, hemodynamics

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Key words: hematology, instrumentation, flowmeters.

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Key words: pediatrics, red cells (English abstract)

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SIMPSON, L.D. Renal disease, polyunsaturated fatty acids and blood rheology. **Nephron**. 44: 256-258, 1986.

Key words: fatty acids, kidney diseases, animal, human  
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Key words: cat, coronary blood flow, myocardial ischemia, oxygen transport rate  
Address for reprints: Department of Pharmacology and Biochemistry, Hässle Cardiovascular Research Laboratories, 431 83 Mölndal, Sweden.

SONG, Y.T. Hemorheological study of yin-yang deficiency and syndrome differentiation. **Chung Hsi I Chieh Ho Tsa Chih** 6: 471-473, 1986.

Key words: blood viscosity, cerebrovascular disorders, coronary disease, oriental traditional medicine, cholesterol (English abstract)  
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Key words: sickle cell disease, hematology, red cell function  
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STERNITZKY, R.\*, HAENSGEN, K., PODHAISKY, H., FRANK, I., KLARE, M. and PREUSS, E.G. Haemorheologische Untersuchungen zur Beurteilung der Mikrozirkulation bei Patienten mit peripheren arteriellen Durchblutungsstörungen und Diabetes Mellitus (Hemorheologic studies for evaluating microcirculation in patients with peripheral arterial circulatory disorders and diabetes mellitus). **Z. Gesamte Inn. Med.** 41: 539-542, 1986.

Key words: diabetic angiopathies, ischemia, blood supply, blood viscosity, non-insulin-dependent (English abstract)  
Address for reprints: Klinik und Poliklinik für Innere Medizin II, Martin-Luther-Universität Halle-Wittenberg, GDR.

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Key words: erythrocyte indices, erythrocyte membrane, erythrocyte volume  
Address for reprints: Department of Haematology, Medical School, University of Birmingham, UK.

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