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Preface

To the Readers

This monograph compiles the lectures which were delivered at the International Symposium on Pulmonary Circulation II, which was organized by the Czechoslovak Society for Respiratory Physiology and Pathology, member of the Czechoslovak Medical Society of J. E. Purkyn, entrusted by the European Society for Clinical Respiratory Physiology. This symposium was held in Prague, Czechoslovakia, between June 17 and 19, 1974.

The European Society for Clinical Respiratory Physiology was founded in Prague in 1966, due to the initiative of Czech scientists, and had its First International Symposium on Pulmonary Circulation in Prague already in 1969; the latter has been published in Progress in Respiration Research as volume 5, Pulmonary Circulation, by S. Karger, Basel in 1970. In contrast to the First International Symposium - which was devoted to the whole field of pulmonary circulation and dealt with the normal and
pathological anatomy of pulmonary hypertension, physical characteristics of pulmonary circulation, the effect of drugs, the effect of physiological gases, the effect of reduction of the pulmonary vascular bed, pulmonary blood volume, the effect of exercise and age, and collateral circulation - the symposium in 1974 was devoted exclusively to pulmonary hypertension. The main topics were: (1) pulmonary hypertension in chronic obstructive bronchopulmonary disease, with special attention being paid to the long-term studies; (2) pulmonary hypertension at altitude, and (3) pulmonary hypertension in left heart failure.

The introductory paper was devoted to the normal haemodynamic values of pulmonary circulation both at rest and during exercise. It was felt when preparing the symposium that there is an urgent necessity for defining the normal values of the lesser circulation both at rest and during exercise, paying also attention to the effect of body position and age. Pulmonary hypertension at altitude studied both in the experimental situation and in men is a very useful model of the effect of hypoxic on the lesser circulation and heart in chronic obstructive bronchopulmonary disease. There is a lack of well-defined longitudinal studies of pulmonary haemodynamics in chronic obstructive bronchopulmonary disease; therefore, the research in this respect should be stimulated. The symposium also discussed the promising aspects of long-term oxygen treatment of chronic pulmonary hypertension in chronic bronchitis as well as the role of left heart in chronic obstructive bronchopulmonary disease. The section dealing with pulmonary hypertension at altitude showed the reversibility of pulmonary vascular changes induced both by permanent or intermittent high altitude as well as the reversibility of right ventricular hypertrophy. Hypersensitivity to the hypoxic stimulus may be linked with hereditary factors, as shown also at the symposium. The hypoxic hypertensive reaction of the pulmonary vessels might be mediated by metabolites produced by long mast cells, as pointed out by some of the speakers. The third part of the symposium dealt with passive pulmonary hypertension, as seen in acute left heart failure, in patients with acute myocardial infarction. Special attention was paid to the effect of natural history of this passive pulmonary hypertension and the effect of physical training. New aspects of therapy of acute left heart failure in patients with acute myocardial infarction were stressed by those speakers showing the promising effect of vasodilator therapy in patients with left heart failure.

The symposium included also free communications on pulmonary circulation. It was not possible to include all papers presented at the
symposium into these proceedings. When preparing these proceedings of the symposium the main items of the symposium stressed that is pulmonary hypertension in chronic obstructive bronchopulmonary disease, pulmonary hypertension at altitude and pulmonary hypertension in left heart failure, and only some of the free communications could be included. We hope that in this way the reader will receive a shorter and complex view of the present state of knowledge in these three main topics. The editors hope that the readers will understand this type of preparation of the proceedings of the symposium.

J. WIDIMSK