

Tissue Fluid and Peripheral Lymph – Physiological and Clinical Studies Applied to Oncology

Symposium May 8–10, 1978, held at Norsk Hydro's Institute for Cancer Research
The Norwegian Radium Hospital, Oslo, Norway

Introduction

Studies of cells and humoral factors in peripheral lymph represent a new approach to the investigation of the local tissue immune defence in man and the circulation kinetics of drugs and various cells in normal subjects, leukemia and other malignancies. Since 1973 this has been one of the main fields of research at the Laboratory of Hematology and Lymphology at Norsk Hydro's Institute for Cancer Research in Oslo, to a large extent in cooperation with other institutions, especially the Surgical Research and Transplantation Laboratory, Polish Academy of Science, Warsaw.

The 25th anniversary of Norsk Hydro's Institute for Cancer Research gave us an opportunity to invite experts from other institutions to Oslo for a 2 day informal discussion of this topic. The present issue of *Lymphology* contains most of the papers and excerpts of the discussions from the meeting.

The two main objectives of the symposium were to examine the basic mechanisms regulating the composition of the tissue fluid, the microenvironment surrounding the single cells in the extra vascular compartment and to reach a better understanding of some of the pathophysiological processes taking place in the interstitial tissue which might have a bearing on oncology.

The biological effect of immune active cells, proteins and drugs which affect the neoplastic cell will inter alia depend on their influx and concentration at the site of reaction. The number of cells in the tissue and concentration of proteins and drugs cannot always be determined by the serum concentration because it depends on many factors such as capillary and tissue hydrostatic and oncotic pressures, lymph flow, molecular size of substances, their electric charge and the motility, plasticity and membrane characteristics of the cells involved. For some substances the measurement of peripheral lymph concentration is necessary to be able to draw conclusions on the concentration in the tissue. The tissue also contains inhibitors of many biological reactions and these may as a result of local tissue events be more concentrated in the lymph than in the serum.

This symposium can touch on only a small part of the many problems involved in this subject. We do hope however, that the symposium and this special issue of *Lymphology* will stimulate interest for this important field of research.

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