

EDITORIAL**IMPROVING THE SCIENTIFIC IMAGE OF LYMPHOLOGY**

The International Society of Lymphology (ISL) was the first scientific organization founded for the purpose of integrating the theoretical and clinical aspects of lymphology (the study of lymphatics, lymph, lymphoid organs, and lymphocytes). As with any growing Society, it has experienced its ups and downs. What has stimulated the following comments is my desire to enhance the scientific image and respect the ISL commands around the world.

During the past 30 years, the ISL has established its own identity, laying claim to the domain of lymphology (see above) and moving into the forefront of research into the physiology and pathophysiology of disorders of the lymphatic system including the integration of lymphoid elements (tissues and cells) with the dynamics of tissue fluid-lymph flow (the blood-lymph loop). By interrelating the interstitium, lymphatics, organized lymphoid tissues (i.e., lymph nodes, Peyer's patches, tonsils, thymus, vermiform appendix, spleen, bone marrow) with migrating lymphocytes and immunocytes, the founding members of the ISL and their disciples created the basis for the modern discipline of lymphology. With a strong scientific background, the original members moved from animal investigations to human diseases and quickly acquired worldwide acclaim including recognition and approval of many of its programs by the World Health Organization, one of the premier international agencies in clinical medicine. Our journal *Lymphology*, too, now in its 26th year of publication, has enjoyed unparalleled popularity with ever-increasing citations throughout the world.

One could only wish it had a larger volume of distribution.

Despite progress and popularity, rapid success like a turbulent stream also dredges up silt and stirs up foam. It is these latter undesirable ramifications that I wish to address and I hope also help to purify. In a nutshell, my concern is the littering of lymphology with information that has not met scientific rigor. I roughly estimate that 10-15% of current data is objectionable on these grounds but, even more disturbing, it seems to be on the increase. As clinical applications expand, the areas of concern are largely twofold—the non-scientific nature of many presentations at local, national, and international meetings, and the lack of controlled trials of many regimens as they apply to treatment of human disorders including lymphedema. Too often, ill-designed animal studies and results are indiscriminantly extrapolated to patients, or clinical impressions are mistakenly equated with true objective findings. Double-blinded, placebo-controlled drug studies, unbiased evaluation of lymphatic imaging and histopathologic review by independent examiners or standardized methods for assessing limb volume with measurements by individuals without attachment to the primary investigation team (i.e., disinterested observers) are rarely carried out. Even if “blinding” and “placebo” are impractical, a parallel evaluation by the researcher and by an independent reviewer is surely possible. “Before and After” patient photographs need to be embellished by statistical methods to evaluate the cohorts. Animal experiments

should be designed with an understanding that the regenerative capacity of the lymphatic system in small animals may be greater than that of humans, and that physiologic data on lymph flow and composition and therapy in dogs and sheep can be extrapolated only with extreme caution to patients and properly only after close consultation with practicing physicians. Otherwise, we may, despite the best of intentions, harm or do a disservice to many patients. These remarks, however, are not meant to discourage or deter the reporting of unusual patients or seminal clinical observations especially by those who do not have the opportunity to carry out large controlled trials. Single but important observations may sometimes revolutionize scientific thinking and drastically alter the direction of the pursuit of ideas.

Another issue relates to who is generating and reporting the clinical data. This consideration is crucial to our reputation in the world academic community and for earning respect among patients. The ISL tries to be a collegial group of clinicians, basic scientists, biologists, physiotherapists and other interested professionals both with and without university affiliation. Indeed, we welcome such cooperation when the work is under the supervision of licensed medical practitioners. This tacit policy is a prerequisite for upholding high quality standards and service to patients. We need to carefully screen the results obtained on patients and volunteers for presentation at our scholarly meetings particularly in the current climate of popular but loosely scrutinized programs of so-called alternative medicines. In accordance with

ethical and local considerations, clinical studies should be conducted only by licensed medical personnel in conjunction with other professionals and with the consent of the patient and in compliance with institutional regulations. Too often our national and chapter affiliates fail to comply with these guidelines and in the long run such omissions will harm lymphology and adversely affect our mutual credibility. My own observations after travel throughout the world leads me to believe that a much closer working relationship between licensed physicians and other medical personnel including physiotherapists is sorely needed. More and better joint planning between basic scientists and clinical investigators is essential. I urge the ISL to redefine contemporary lymphology, its scientific and clinical goals, and the conditions under which clinical and animal studies should be conducted before the results can be published. Such an accomplishment would further unite the heterogeneous efforts of our wide base of academic and non-academic personnel, and will upgrade the quality of the presentations and general respect for lymphology in the scientific community at large. Perhaps we can all reflect on these ideas and discuss them further at the 15th International Congress in Brazil.

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