EDITORIALS

The Unique Role of Peer Review Journals

A carefully structured report was sent to my editorial office and then transmitted to out-of-office consultants for editorial peer review. The detailed comments of the referees were submitted to the investigators; Dr. W. Y. Chen of Denver, Colorado, the distinguished senior author, responded on behalf of his colleagues with a revised manuscript and these comments, "We believe that the revised paper has been improved greatly after many of the suggestions of the referees were implemented. We hope that our readers will be as critical as our referees have been so that the quality of our studies can be continuously examined. Many thanks to you again for every effort you have made in improving this manuscript." Dr. Chen's views of the process of a responsible, constructive editorial review and his reliance upon a critical readership provides a number of insights into the indispensable role of peer review journals.

Clinicians are buffeted daily with claims from purveyors of "cookbook, instant medicine." Practitioners are told that "medical journals are dull and unresponsive to the clinical needs of the practitioner." We are warned that "scientific journals" are characterized by inordinate delays in publication of new information and that when publication ultimately occurs, it is in an esoteric format which is of little value to the physician who cares for patients daily. Those who relate this litany of deficiencies of traditional medical documentation propose ready solutions! Their answer? Naturally, it is publication of an ever-increasing number of medical news periodicals, review magazines and controlled circulation publications featuring "easy to read" digests with gloriously colored graphs and drawings.

I believe that the continued popularity of certain controlled circulation periodicals indicates that their publishers have correctly sensed the need for innovative journalistic techniques in biomedical communication. Only false pride could prevent the adoption of some of these more creative approaches to graphic design and manuscript layout. However, a nod of appreciation for constructive innovations is a far cry from the warped priorities that currently exist in the minds of many (ie, denial of this primacy of scientific clinical journals). Scientific progress depends upon evaluation of prior research and this requires publication of articles with methodologies, data and bibliographies detailed enough for critical appraisal. How many major studies published in the past 50 years have referred to articles in controlled circulation review journals or medical newspapers? Even the most enthusiastic advocate of journals which provide "immediate clinical guidelines for the practitioner" would be shocked at the suggestion that valid new concepts can appear initially in these "easy to read" summaries of diagnosis and therapy. Thus, review periodicals are entirely dependent upon the scientific medical press for the establishment of current concepts of diagnosis and therapy. News reports of research presented at medical conventions, congresses, seminars and symposia may be provocative and modestly informative, but in no conceivable sense should these reports serve as a basis for modifications in patient management. Convention reports should be regarded as initial efforts to obtain the criticism and guidance of colleagues. Prudent patient care demands that ultimate judgment await submission of a formal paper and the obligatory process of editorial peer review.

Dr. Chen's comments underscore the profound differences between scientific clinical journals and digests of diagnosis and therapy. He and his colleagues plead for a critical readership so that the quality of their studies "can be continuously examined." This plea expresses a trust that the readership of clinical periodicals can function as a critical element in the evaluation and establishment of new trends in medical practice. This view is counter to those who would encourage the physician to become a technician who believes without reservation every review or "how-to-article." Should the latter become the dominant pattern in medical journalism, then we would require only a few all-purpose journals. Data of an investigational nature would be stored in a national computer center and would be
accessible to interested researchers. Editors of peer review journals have a different philosophy; we ask that authors prepare each article with enough detail so that the clinician-reader can form his own judgment of the strengths and weaknesses of the study.

None of these observations is meant to denigrate the value of editorials, reviews, and other communications which synthesize and interpret. Many departments in our journal provide this function of criticism and interpretation. However, as a scientific medical periodical, we also have the unique responsibility to evaluate the validity, significance and particularity of original clinical studies. This goal can be best achieved if there exists a partnership of participation among editors, authors and readers. The publication of an original study is the beginning and not the end of dialogue and the practitioner who is indeed a critical reader can serve as a valuable ally in the establishment of scientific truths.

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A 1980 Perspective of Lung Transplantation

The need remains for lung transplantation. It is emphasized by the illness of the recipient selected by the Toronto General Hospital group as described in this issue in detail by Nelems and co-authors (see page 569). Their patient had sustained pulmonary trauma, apparently incompatible with independent life, and lung transplantation offered an otherwise unavailable potential for survival.

The report by Nelems et al will evoke a spectrum of reactions. At one extreme will be the critics' call for a moratorium, pointing to the results of 37 previous lung transplants, only one of which, approximately a decade ago, managed to support the recipient's life for 10% months. At the other extreme, enthusiasts will point to the additional knowledge and experience derived from this trial. They will advocate pushing ahead toward solving residual problems. In my view, the enthusiasts are worthy of further support, but there needs to be a clear definition of the problems and further research progress before additional clinical trials are condoned.

I cannot agree with Nelems et al that "the major determinant . . . is related to the . . . artery supply to the donor bronchus". While I grant that innovative approaches to improving the bronchial circulation (such as heart-lung unit transplants) may be helpful, such research does not address the fundamental problem. I see the impaired healing of the bronchial anastomosis as an adverse consequence of pharmacologic immunosuppression. It is merely the bronchial correlate of lack of wound healing which was also visible at the surface in the thoracotomy wound in the Toronto General Hospital patient. We can anticipate wound healing problems until we have learned to prevent and/or to diagnose rejection with precision. The fundamental solution, I believe, lies with immunologic research as a result of which the need for immunosuppression may be obviated or minimized.

The critical reader should temper his negative opinions and perhaps change them to admiration. He should note that there are 13 authors from five departments who contributed to this effort and that there were no apparent alternatives for the recipient. More important, he should note that this comes from a multidisciplinary unit with a long commitment to experimental lung transplantation. Only in units such as this one (and there are very few) should lung transplantation be offered to patients. The emotional investment by the patient's family is tremendous; it should not be enrolled unless there is new reason to anticipate success. New expectations of success, in my opinion, must include a strong experimental laboratory basis, and this requires a meaningful and continuing collaborative arrangement between clinicians and basic science immunologists.

It is an unfortunate reality that so few leaders in immunology accept transplantation issues as their primary research challenge. The present therapeutic status of kidney transplantation has been achieved largely by transplant surgeons and other clinicians while basic science leaders look on. This should not be allowed to persist. Universities, research institutes and granting agencies should utilize their considerable influence to encourage talented leaders in immunology to join their clinical colleagues.

Is successful lung transplantation possible? Of course it is! The essential elements include prolonged oxygenator support as utilized in the Toronto General Hospital patient, methods for prevention and/or reliable assessment of allograft rejection and techniques of organ preservation which will permit tissue banking. One need consider only the human misery and economic loss which results from chronic lung disease with progressive respiratory insufficiency to conclude that research in lung transplantation should continue. The scope of the problems, however, transcends the skills any single discipline can provide. We have come through the era of primary concern with technique, physiology and blood supply, and we have entered a phase where transplantation biology as pertains to lung