

What Happened to the Large Studies?

The first issue of JOMI appeared in the summer of 1986. There were six articles and an editorial. The first year there were only two issues, but the journal quickly expanded to a quarterly publication. In those days there were very few dental implant journals, consequently the prosthodontic, periodontal, and oral surgery journals published much of the implant literature.

My how things have changed. We now have at least six international implant journals and there are innumerable national and regional journals. As we saw before, specialty journals still publish implant articles and the number of specialties involved in these publications is increasing, with orthodontics and endodontics now entering the implant field. To steal a phrase from baseball, it's hard to keep track of the players without a scorecard.

When you consider this remarkable growth, you have to wonder where it will go next. Clearly Charles Duell of the US Office of Patents missed the mark in 1899 when he opined, "Everything that can be invented has been invented." Perhaps we are closer to Moore's Law, where it was suggested that the integrated circuit would double in capacity at lowered costs every 2 years for the foreseeable future. Indeed, in scientific literature we may not be doubling knowledge every other year, but we constantly are creating an ever-increasing volume of material. I probably should not be so bold as to speak for the readership of JOMI, but my guess is that there are few, if any, who can remain continuously current in the implant literature.

It is interesting to think about how articles move toward publication. To be published in JOMI, an article must pass through the editorial board. This means that the article must fit into one of the publication categories (Implant Science, Clinical Applications, or Technical and Case Reports) while following a set of publication guidelines provided by an international group of medical journal editors. Once an article passes through the editorial office, it will be reviewed by at least two individuals with expertise in the field. Over 700 individuals, who have previously published in the field of implant dentistry, review articles for this journal. Once the peer reviewers provide comments, an associate editor decides if the required changes can be accomplished through article revision or if additional research is required. Over 500 articles are submitted per year, while 125 to 150 will be accepted. For those whose articles are accepted for publication it is certainly an honor, but for those who do not have their material published the effort may appear to be unacceptable. As editor, I try to encourage all authors but certainly understand that there is no perfect way to decline an article while still encouraging an author.

Considering the review process, I think it would be difficult to use this journal as a forum for propagation of

any specific clinical philosophy, promotion of a specific proprietary device, or advocacy for a specific etiology for any clinical observation. Likewise it seems inappropriate for the journal to demand a specific study design over all others. Indeed we understand that there is an evidence-based hierarchy in which randomization, gold standard controls, and clinical protocols are included in the recommended format for all studies. Having said this, however, it is critical for everyone to understand that this hierarchy is based primarily on avoidance or minimization of bias. The hierarchy is not a guarantee that a study, simply because it follows a specific design, is inherently more valuable than another study using a different design. Furthermore, it is distinctly possible for studies to be unbiased despite the design. Unfortunately, the level of bias is difficult to assess when reading an article; it is for this reason a favorable study design is chosen, as it should be inherently less biased.

Understanding that there are valuable studies conducted using different study designs, I must admit discouragement over the declining number of case series and cohort study submissions to the journal. The field of implant dentistry emerged from the dark ages of clinical anecdote when long-term clinical case series were used to document treatment that succeeded over time. This journal would not have started without such studies, but these same designs appear to be unwelcome in current literature. Maybe it is time to re-invite the large and long case series back to the journal.

The gradual movement away from well-populated, adequate-duration studies leaves the readers with a series of short-term, small-sample-size comparative studies that, although well designed on paper, frequently fail to demonstrate clinical differences among tested devices, techniques, or materials. The reason may be that no differences exist, that the differences occur only after longer time periods, or that true differences occur in subsets of the study but are obscured by pooled data.

It seems that the addition of long-term, large-sample-size case series and cohort studies to the journal would be a great addition to our knowledge base. When these studies confirm higher-level studies, we feel reassured, and when they identify incongruities with other research, we might need to revisit both types of documentation. At the very least, the publication of different types of studies allows a broader knowledge base and may provide an opportunity for clinicians to share their experiences, thereby working on the theory that all knowledge is beneficial.



Steven E. Eckert, DDS, MS
Editor-in-Chief

