



Again and Again

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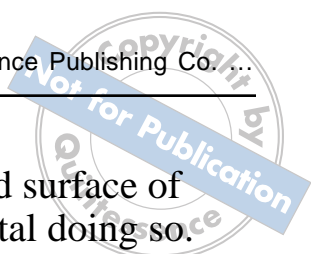
Section Editor

It's like a broken record. Clinical dentistry is doomed to repeat its own mistakes much like the lost souls of the Inferno. "Clinically proven" seems to mean something different to dentistry than it does to other disciplines of the healing sciences. "Clinically proven" to dentistry means just that; something has withstood the test of time in practice and has become the standard of care on the basis of longevity and the absence of failure. If it has not worked, it has been relegated to the dustbin of nice ideas that did not quite live up to expectations. Unfortunately, this type of clinical proof is largely gained at the expense of the unsuspecting and fee-paying patient.

Pleas for research get lip service from one and all but then go unheeded in the dental marketplace. A new design for an implant or abutment, a new material for a temporomandibular joint replacement, a clever new membrane, soft denture liner, or a new restorative material gets its first trial at the expense (physical as well as financial) of the innocent patient, whose only error was to put trust in the doctor recommending the particular treatment. We dentists are our own absolute worst enemies. Accepting an advertisement for a new material or device without scrutinizing the literature behind it has been our modus operandi. We assume that anything we see in a scientific journal, ad, or article is valid in presentation and content. One clear shortcoming of dental education is that as students we were never really taught to question what is presented to us. Blind faith seems to be our rule of thumb.

Case in point. A recent advertising campaign by an aggressively inclined dental implant manufacturer praises the potential of their innovative new acid-etched implant surface. Great things are claimed for the surface; increased surface area for bone apposition is the most dramatic. The ad is convincing and the implant is almost irresistible to the reader. Unfortunately, there is absolutely no evidence of documentation that the surface works as advertised because it seems that the surface has never been evaluated in clinical or even animal trials. There are no references available regarding its biocompatibility at the cellular level through straightforward tissue culture studies. It is a new surface with unknown characteristics.

When one discusses the new implant with company sales representatives, they are quick to point out that the surface is the result of "extensive scientific research." Unfortunately, the research cited involves a surface that is different from the newly advertised implant. While the new surface will likely succeed admirably, its method of introduction without the least evidence to support its efficacy should give us all



pause to contemplate the basis of that introduction.

Meanwhile, a different company has been evaluating an acid-etched surface of its own for more than 7 years and has spent significant amounts of capital doing so. This company, being inherently conservative, has resisted marketing its “new” surface but continues to pour resources into studying its safety and efficacy. The first company now finds itself reaping the rewards of an aggressive marketing campaign for its new surface based on the basic scientific research of a competitor with what may prove to be an entirely different surface.

Does the newly marketed surface offer any documentable advantages to a more traditional machined or TPS surface? Does the acid-etching technique used to create the new surface generate undesirable titanium hydride crystals that may be harmful? Are there any negative characteristics to the new surface? Unfortunately, the answer is unknown because the new surface has been marketed before being evaluated for safety or efficacy.

Who is to blame for this type of product introduction and perceived marketing success? Unfortunately, we the clinicians who purchase such products without requiring the least bit of scientific documentation about something as potentially harmful as a surgically implanted device are the only ones to blame. Some would argue that if we cannot better police ourselves, agencies like the FDA should impose even stricter controls over innovation and product development. None of us want more regulation from government. Whose responsibility is it to protect our patients? This practitioner feels strongly that the company under discussion is only guilty of eagerness to exploit the marketplace. We, the practitioners in whom patients place their faith and their health, are the truly guilty party for submitting those patients to new devices, materials, and techniques that have not stood the test of scientific rigor.

As long as we deem it desirable to accept less than even cursory scientific support for how we treat our patients, we are doomed to be the lost souls rolling the rock uphill only to see it slip away and destroy what we have gained again and again. It is past time that we clean up our act.