Franco Valenza

The further back, the further forward

Accepted: 20 November 2008
Published online: 29 November 2008
© Springer-Verlag 2008

I recently happened to browse through some very early publications of my institution and realized how far ahead the knowledge was on ventilator induced lung injury. Professor Giorgio Damia, father of Anesthesiology in Italy, published a paper in 1957 on the effects of mechanical ventilation on distal organ failure [1]. Unfortunately, those data not only did not reach other international scientists of the field, they did not even reach those who are currently working in the same institution on the same topic! In reading that paper I was proud on the one hand, but ashamed on the other.

When I first started studying medicine, the library was sacred. A new edition of a journal of interest was eagerly awaited; when it arrived, it was felt to be a very precious fountain of knowledge, thinking and novelty. I am not that old, but I experienced the revolution of the internet, of virtual libraries easily available to both scientists and clinicians throughout the

world. The average standard of care improved greatly because of this; however, the increasing number of papers published on a daily basis implies more and more time to keep updated—time that is not always available. So we succumb to one of the features of our modern society: superficiality. Abstracts, conclusions and pictures (tables are too complicated, who cares about methods!) capture our attention at a glance, before we leave the manuscript on the desk (or delete the file on the computer screen). Of course, I do not mean to offend any scientist or clinician who is representative of this poor picture. I myself sometimes pretend I have read a paper, when in reality I have superficially skimmed it. However, I feel this is not enough: I should go deeper.

Writing a paper is a matter of bringing knowledge to the scientific community—producing evidence that hopefully one day will allow the field to move ahead. Today's humble piece of work may someday contribute to a revolutionary scientific discovery that we do not see now, but that will change perspectives and improve health tomorrow.

This is why I like any paper that is well constructed, irrespective of its potential contribution to today's knowledge, and it is why I dislike papers whose sole purpose seems to be publishing so as to simply increase the author's number of publications. As a field, we are lucky enough to have a system where papers are screened by means of peer-reviewers. However, this is only the last step in a long progression. We need to start at

the beginning: dig deeply into the literature, quote the first original contribution, not the last review article; write “conclusive” papers if possible, that provide sufficient evidence to prove (or disprove) something. If necessary, conduct investigations that require multiple steps, a process which is definitely more time consuming and harder to do, but likely more robust in their conclusions, and certainly of greater satisfaction.

To do so we need to remind ourselves, and our students that what matters is not how many but how; not how fashionable, but how important. Science needs an hypothesis, a method and to be truly meaningful lots of passion—for the work is hard. Respect and knowledge of the past is essential because, as Winston Churchill suggested, “the further back you look, the further forward you see”.

Reference

1. Damia G, Palmieri R, Sironi PG (1957) Influenza della ventilazione controllata a pressione positiva intermittente sulla produzione del deficit epatico postoperatorio. Atti della Società Lombarda di Scienze Medico-Biologiche, vol XII, Fasc. 3

F. Valenza (✉)
Fondazione IRCCS,
Ospedale Maggiore Policlinico Mangiagalli
Regina Elena, Anestesia e Rianimazione,
20122 Milan, Italy
e-mail: franco.valenza@unimi.it
Tel.: +39-2-55033232
Fax: +39-2-55033230