LETTERS TO THE EDITOR

Confidence Intervals, "P"s and Lights

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To the Editor:
The General Universitario y San Juan de Alicante hospital group has been publishing in *Actas-Dermosifiliográficas* a series of very useful, interesting, and painstaking bibliometric studies.[1,2] For the sole purpose of improving them, I would like to mention a repeated error which, although not serious, could indicate a methodological weakness in the editing process of the journal.

In research, the usual approach consists of analyzing a sample in order to obtain results applicable to the population from which the sample was taken. Since a sample is used, the measurement is associated with a random error, which may be quantitated by statistical estimation. To do this, confidence intervals are most commonly used, as they provide an actual value for the sample and a range in which the actual value of the study population is likely to be found.

However, on rare occasions, results are obtained for the entire population rather than a sample and estimation makes no sense because the actual result is available for the population. Such is the case of the articles mentioned. If, for instance, all *Actas* papers from 2003 to 2005 are studied and compared to those from 2000 to 2002, estimation is not needed, and the confidence intervals provided in the paper are unnecessary and false (they are based on an analysis of a much larger population sample): the true confidence interval includes only the value found.

The same can be said of hypothesis testing: the *P* value indicates the probability that the results of a sample will be found when the null hypothesis is true (usually, that there is no difference) and considering the existence of a random variation associated with sampling. This is applicable when samples are studied. In this case, entire populations are studied and it makes no sense to use hypothesis testing (all *P* values "would be" 0 when different and 1 when not). This case is also an example of the actual value of *P*: all the differences found are statistically significant (*P*=0); the difficulty lies in knowing if they are significant from the "clinical" point of view, something the statistics cannot reveal.

I feel that these papers would be improved if the *P* values and confidence intervals were eliminated, and measures of dispersion (standard deviations, percentiles, or ranges) were used to describe the data instead.

As a curious anecdote, I am reminded of Castle's excellent English humor[3] in his book on an introduction to statistics where he said that physicians tend to use statistics in the same way that drunks use lampposts: for support, rather than lighting. Warm regards.

References

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2. Ramos JM, Belinchón I, Miralles J, Ballester R, Sánchez-Yus E. Análisis de la producción científica nacional e internacional de los dermatólogos españoles (1988-2000). Actas Dermosifiliogr. 2006;97:436-43.
3. Castle WM. Statistics in operation. Edinburgh: Churchill Livingstone; 1979. p. 4.

Reply

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To the Editor:
We appreciate the interest shown by Dr García-Doval[1] in our bibliometric studies of the *Actas Dermo-Sifiliográficas* journal. In reply to his comments on the methodology, the first article, "Análisis de la producción científica de la revista Actas Dermo-Sifiliográficas en el trienio 2003-2005" (Analysis of Scientific Production of Actas Dermo-Sifiliográficas between 2003 and 2005),[2] "all" papers in the two periods are compared, as the title indicates. As the author points out, because the entire sample for the journal is available, it is not entirely correct to use the confidence interval as an estimated measure of the sample since we used all documents (entire population). In this article we used the confidence interval as a measure of dispersion in the quantitative values.

We agree with the author that it might have been better to use the standard deviation, interquartile range, or range as a measure of dispersion. Nevertheless, we feel this is a minor error because the confidence interval of quantitative values would also be an approximate measure of dispersion in the reference population of our sample given that this sample corresponds to the entire population of publications. According to Dr García-Doval,[1] the use of statistical significance (*P*) in this article is not appropriate because we analyzed the entire sample. We were interested in measuring the difference between the two periods, using a statistical tool that would allow us to detect significant differences and interpret whether or not any significant differences were relevant or whether they are important in a bibliometric study.

In the other article, "Análisis de la producción científica nacional e internacional de los dermatólogos españoles (1988-2000)," (Analysis of International and National Scientific Production of Spanish Dermatologists [1988-2000]),[3] we used the odds ratio (OR) and respective confidence interval as a measurement of association between publications in international journals and those in *Actas*. According to Dr García-Doval,[1] in this article we should not have used the confidence interval or tested for statistical significance because we have worked with the entire sample of the articles, but this is not the case. Publications in international journals do not account for all papers published by Spanish dermatologists and so we did indeed study a sample since there were international journals for which we were unable to find abstracts in the database used. As a result, we feel that the use of confidence interval and statistical tests in this publication is appropriate to identify significant differences between international journal and *Actas* papers. It is possible that information containing many odd ratios and *P* values proves to be weighty. As in the previous article, not all significant *P* values have the same relevance. For example, the Hospital General de Soria produced 0.2% of all documents in the international journals and 1% of those published in *Actas*, with a difference of 0.8% in prevalence and a statistical significance of *P*=.01. Despite this, we feel this difference would not be relevant in the literature. Conversely, Hospital Universitario 12 de Octubre had published 3.8% of the articles in international journals and 11.1% of those published in *Actas*, with a difference of 7.7% in prevalence and a statistical significance of *P*<.001. In this case, the Hospital Universitario 12 de Octubre produces more articles for the *Actas* journal, compared to international journals. These examples illustrate the fact that statistics can help, but an accurate interpretation of the results from the clinical (or bibliometric, in this case) point of view is also needed.

We wish to thank Dr García Doval[1] for his letter, as it allows us to maintain a dialectic discussion with the *Actas* readership. Hopefully this discussion will help improve the papers and enhance communication among journal readers.

References

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3. Ramos JM, Belinchón I, Miralles J, Ballester R, Sánchez-Yus E. Análisis de la producción científica nacional e internacional de los dermatólogos españoles (1988-2000). Actas Dermosifiliogr. 2006;97:436-43.

Benign Epitheliod Fibrous Histiocytoma

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To the Editor:

Epithelioid benign fibrous histiocytoma (EBFH) is a variant of dermatofibroma first described by Wilson-Jones in 1989.[1]

The incidence of EBFH ranges between 0.5% and 1.4% of all benign fibrous histiocytomas of the skin in the various published series.[1-3]

We describe a 33-year-old man who consulted for a stable, asymptomatic lesion with onset 2 years earlier, located on the right gluteus.

The patient's relevant history included in situ malignant melanoma in the right clavicular region 5 years before, with yearly clinical follow-up showing no evidence of local or distant recurrence.

The physical examination revealed an exophytic tumor with a maximum diameter of 0.6 cm located on the right gluteus, of port-wine color. The lesion remained unchanged with pressure and had a rather hard fibrous texture, although no deep infiltration could be observed.

Dermatoscopy study (Figure 1) of the lesion showed branched vessels