

Why case reports?

The collection of case reports that trails after the editorials, letters, reviews and scientific studies is probably the least distinguished section of a general medical journal. The more eminent the journal, the fewer case reports it offers.

Edward Huth,¹ editor of the *Annals of Internal Medicine*, lists three types of single case reports that he feels are worth publishing: the unique case that presents a totally new constellation of findings; an unexpected association of two relatively uncommon diseases or disease manifestations in one patient; and an unexpected event such as an adverse drug reaction or recovery from an invariably fatal disease.

In all three types the authors are required to report two or more phenomena — diseases, laboratory findings, signs or symptoms — not known to concur in the same person. If the authors can find an accepted pathophysiologic mechanism that explains the new picture, our knowledge of disease is immediately increased, and a new syndrome may be born. Failing such an explanation, coincidence cannot be ruled out until a substantial number of similar case reports appear. If one of the phenomena is relatively common, a study large enough for statistical analysis may be needed.

The requirement that a case report be both novel² and credible is a stringent one, since these two characteristics are inversely related in clinical medicine: the more common something is, the easier it is to believe, and the rarer it is, the more documentation and explanation it requires. The emphasis on novelty, too, carries with it a contradiction; the second and third reported cases of a new association cannot be unique, but they may be more

important than the first case, as they not only confirm it but demonstrate that it may not be as rare as the editor of the eminent journal took it to be. I suspect that the normal sequence of events in bringing a striking new finding into the medical literature via single case reports is as follows. The first case is reported to the most prestigious journal the authors can find. Subsequent cases, shorn of novelty, can see the light of day only in lesser journals. If a number of cases are reported, they are ultimately summarized in a brilliant review in the original journal, which modestly reminds the reader that "you read it here first".

Few case reports meet Huth's prerequisites. Often the events or associations in a published case report are merely unexpected or unusual and are connected only by a plausible surmise. Although authors dramatize the rarity of the condition (at the same time urging the reader to maintain "a high index of suspicion" for it), the editor may have a different agenda. A journal's willingness to publish a single case report depends not only on its unwritten standards for novelty and credibility but also on its need to fill space or to give its contents "pace" and "mix". The editor may have a nobler motive as well: to interest the reader in a short clinical vignette that makes a point about nosology, diagnosis, pathophysiology or management.

Case studies are a fundamental technique for teaching medicine. Painless instruction is probably the most common justification for publishing case reports. A good case report begets awareness, jogs the memory and adds to understanding. It begins by explaining why the case is being reported, continues with a brief recital of the events that charac-

terize the case and give it credibility, and concludes with a selective literature review that places the case in context and shows the interested reader where to find the related articles. A case report in a general medical journal usually should be pitched for a broader readership than those in the author's specialty; at the least it should interest workers in related fields. The readers should be able to identify with the clinical situation: episodes of dazzling virtuosity, darn rotten luck or amazing grace should remain purely personal experiences. And the report should end by stating how the observation challenges or adds to medical knowledge, perhaps giving the reader an object lesson in diagnosis or management.*

Case reports are generally no more than enhanced anecdotes. The hypothesis that they rarely add to useful medical knowledge could be investigated by a student of information science. They are relatively easy to produce, and editors are justified in being highly selective in choosing them for publication, whether they do so to add to the prestige of their journals or to supplement their readers' clinical experience.

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References

1. Huth EJ: *How to Write and Publish Papers in the Medical Sciences*, ISI Pr, Philadelphia, 1982: 58-63
2. Morgan PP: Originality, novelty and priority: three words to reckon with in scientific publishing. *Can Med Assoc J* 1985; 132: 8-9

*I am indebted to a reviewer, Dr. Hulbert K. Silver, for the wording of this sentence.