Science and the Art of Case Reporting in Medicine

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ABSTRACT

The case report is one type of article published in medical journals. Not all case reports can be published. Case reports worth publishing are case reports that have good teaching points and good clinical messages. Writing case reports need academic and clinical skills, along with a taste of art to interest readers to read and study about the case we report. Case reports are expected to be a good tool to all clinicians to build their clinical reasoning and sharpen their clinical instincts.

Key words: case report, medical journals, publication.

INTRODUCTION

The case report is one of the most important type of article published in academic medical journals or magazines. This type of article, along with the review article, brief report, or book review, accompany an original article which act as the ‘main course’ in each edition of medical journals. Although not the prime article, the value of a case report is high. It is because not all diseases are suitable for observational or clinical study, due to lack of samples (in rare or interesting cases), or there are many detail aspects in the case so, we, as clinicians, need to report the case in the format of case report. This format proceed with a longitudinal, complete, meticulous observation, and also finished report with the learning issue to study for.

In the research designs in epidemiology, we know that all starts from the case report. Every disease is observed and reported first in the case report format, and then the studies develop to more sophisticated designs, like the cohort or clinical trial. It is not affluent if we say that case report was the beginning of ‘something new’ in medicine through out centuries. At this millennium, case report also give different perspectives and interesting findings from one or more cases in daily practice. Many clinicians all over the world can study a case from other colleagues by reading case report published in medical journals.

Writing a case report is different from writing
a research article or literature review. It has a special stressing point, and also rules to follow. Writing case report has some ‘formula’ that we should comply. It is a combination between writing with academic knowledge and logical thinking, and art to interest people, or make colleagues want to know more and study about that special case we are reporting. This article want to explore more about the case report; how to prepare it and several tips and tricks from the editors and experts on how to make it more interesting to the readers.

CASE REPORT: A SCIENTIFIC WORK

Since the Hipocrates era, case reports have made valuable and big contributions to the advancement in medical science.1 Nowadays, there are many medical journals publishing case reports.1,2 There are 190,703 citations with the term of “case report” until November 2012 in PubMed database, and in 1 year the number grows to 200,737 (November 2013). It means that in only 1 year there are more than 10,000 case reports published in the database. This huge number of citations shows that case reports have made a big percentage in medical literatures and grow rapidly with to time.

Although most medical journals give less portion for the case report compared to original article, there is an increasing number of case reports lately because of the booming era of evidence-based medicine (EBM). Some prominent medical journals such as British Medical Journal, seem to increase the publication of evidence-based case reports, so does prominent Indonesian journals such as Acta Medica Indonesiana – Indonesian Journal of Internal Medicine and Medical Journal of Indonesia. The evidence-based case report (EBCR) itself is the combination of case report and research article that gives evidence from previous studies applied in solving or answering a specific problem of the patient.3,4

For decades, case reports several only as ‘dessert’ in many medical journals, but now, we can see also medical journals which dedicate it’s ‘mag’ only to publish case reports. Some examples of case report journals are Journal of Medical Case Reports, Clinical Case Reports, BMJ Case Reports, Journal of Medical Cases, and from our region, there is the Southeast Asian Journal of Case Report and Review. All of them are cited in many prominent database such as PubMed and Scopus. These journals also contribute to the huge number of case reports in the last ten years.

From the definition, a case report is a type of article or presentation which report scientific observation of medical cases from a real patient. The article can report all aspects of the patient’s case or only part of the case which is useful for the reader to learn for the purpose of patient care in the future, academic discussions, and a basis for observations (case series, cross-sectional, case-control, cohort observation). McCarthy et al.,1 citing old literature, said that case reports are “scientific observations that are carefully documented so that they may be a valuable education and research resource (for the future)”.

Not all case reports can be published in medical journals. Maybe in the early days of medical journals, every case which is found by clinicians in the ward, outpatient’s clinic, or emergency department must be reported and published for academic purposes, as Sir William Osler said, “always note and report the unusual. When you have made and recorded the unusual or original observation, publish it. At that time, every case is ‘unusual’ and worth publishing. But, according to Charles Young, editor in chief of Clinical Case Reports, in a teleconference lecture in June 2013, nowadays, case reports published in medical journals must have good teaching points and good clinical messages.5 Young defined the term ‘good teaching points’ as practical, important for the reader, and generalisable.5 It is very obvious that Young’s stressing point is that the case report can be a useful material for other clinicians and academic professionals (such as lecturers and researchers) related to the topic or the case study.

Deeper into Young’s lecture, it can be said that all cases can be published in medical journals even though it is a very rare case or finding, or it is very general so it has been published many times in many medical literatures. It is the teaching point that made the articles worth publishing, so every clinician and academic
professional who want to published case report must show the novelty and teaching point to the editors and readers. Every author of a case report must concentrate on ‘why is the case important for the reader?’, ‘why should the report be published?’ and ‘who will read it’. It will bring good foundation for authors in writing each part of the article.

There are four components in a case report article. These four parts are the standard requirement for writing a case report. It is the introduction that lead and guide the readers to keep in touch with the case illustration and discussion. Put epidemiologic data and novelty of the case report. In the introduction, in short, make the case important worthy to be published to the readers of the journal.

Case illustration is the main characteristic of a case report. In writing case illustration, we must put data that is important and relevant to the topic and discussion. Not all data must be included in this part. Only data which has clinical teaching point need to be included in the article. Also, to remember not to miss any data that is necessary to the clinical messages in the case report. If pictures or longitudinal laboratory follow up is needed, do not miss it. But, writing case illustration is often based on the journal’s in house style. So, reading several article from the past issues can be a good suggestion for case report authors.

Discussion is the important part in the case report. This is the selling point of a case report that makes the article worth publishing. In the discussion, the author communicates with the readers about how they work with the patient, whether it is based on the literature or not must be explained and discussed. Sometimes the clinicians approach to the patient is different from the literature or guidelines. The author must clarify things that happen in the real clinical setting and how it is supposed to be or why they do something ‘different’. In case reports, sometime we see the patient finally die, and if it is important to give clinical messages to the readers, it must be stated in the article. It is the author’s duty to discuss it. The important thing for the combination of case illustration and discussion is the word ‘finished’ or ‘completed’ till the clinical message of the case report can be delivered to the readers.

In writing discussion, we only need several references. Young said that 8 to 10 references are good enough for helping us discussed the patient. Young also stated that “case report is not a comprehensive review about the disease”. Clearly, all authors must set up the teaching dan clinical messages in the discussion for the editors and readers. After discussion, the author must conclude the case and again, teaching and clinical messages in the conclusion part.

**CASE REPORT: AN ART WORK**

Writing a case report can be difficult for several clinicians or lecturers, even though they are experienced clinicians. But, for clinicians, it is very important to read and write minimal one or two case reports annually. Why? Because by reading and writing case reports annually, it keeps the clinical systematic judgement growing and developing. Case report is often an obligation for medical students and residents. By writing case reports, they will build their own clinical reasoning about the patients and also sharpen the clinical instinct. It is very good to work in the clinical setting and also report and share cases in case reports so our collegues can learn more from the real case we have experienced.

Beg said that writing case reports can be a very good start for all beginners (students or residents) under the supervision of their teacher or consultant. Beg also said that it does not need much hard work as an original article. Case report only need few (clinical) references so it does not need many study included in the article. Just state important findings and details of the case and discussion. Also, we need to clarify things that do not match with the literature.

Writing a case report is an academic task with a taste of art. Like any other literature is a work of art, a case report is also an art. Many famous case reports become turning points for the management of one or more specific diseases. Many development of diseases involve case report in history. We must value case reports well, so does many clinicians can learn from it.

As a work of science and art, the author must write case report honestly. Any data that
comes from the patient must not be manipulated. In writing case reports, we must give the best introduction. It is the author’s task to compile epidemiologic data, previous case studies, and many questions which did not answered in the previous publications. Give brief and good novelty why the case must be reported and published. In case illustration, the author must be smart to choose sentences and paragraphs to make the case more ‘alive’ and interesting. Monoton diction and repetitions can bored the readers.

In the discussion, authors must compile findings and observations in the case and compare with previous literature. This is the hardest part of writing case reports. Clarify things systematically and with the sentences which will interest readers. Give pointy arguments, smart data dan compilation. Satisfy editors and readers with your essay. Explanation does not need to be long and complete but give ‘little surprises’ for them.5

For the references of case reports, it is suggested that authors include textbooks, medical journals which report previous case studies related to the topic, guidelines, and consensus. Weimer S8 in his presentation suggests to avoid abstract and personal communication for references of case reports. Especially for evidence-based case reports, authors must include studies which can answer the clinical question and being critically appraised in the article.

Last but not least, the author of a case report must choose an interesting title and write the abstract before submitting to medical journals. It is suggested to put the title after writing the whole text because we can see clearly about ‘what have been discussed dominantly in the article’ or ‘what is very special from the article’. Title is a very important part of case report because many busy readers screen articles they want to use or read by looking (only) at the title. They always judge the article by it’s title.

Many techniques have been used in writing case report’s title. The use of “......: a case report” or “......: a report of two cases” firmly shows that the article is a case report, such as “Congestive heart failure in thalassemia patient: a report of three cases”. Many ‘confused’ authors who can not firmly separate case report and literature review often use terminology “......: a case report and review”, such as “Rabies in primary health care: a case report and a review” but it is still reasonable as long the article is important and has good teaching points. Most case reports use brief diagnosis and brief epidemiology characteristic that is very special in the case, such as “Systemic lupus erythematosus in an old man” or “Neonatal lupus”. Another technique of writing title is write everything about the patient – many of case report journals use this technique - such as “Case report of 24th year-old woman with paroxysmal nocturnal hemoglobinemia”.

Writing abstract is easier, especially if the whole text has been written. The abstract is a summary of the article and offers the reader a brief systematic presentation of the paper.9 The important of abstract is to give information to the readers about what is the article all about. In the abstract there are keywords that are also important for searching the published paper. Abstract must be short (only 100-250 words). For case reports, narrative abstract still used in many medical journals, and only several journals which require structured abstract (for case reports: introduction, case illustration, and discussion).

Appearance of pictures and tables also is part of the art. Do not put pictures that is not necessary for the case illustration and discussion. Select photographs and graphs with high resolution and have artistic view. By completing all requirements and standards of case reports, we can make a case report that not only has important clinical and publication value, but also artistic.

CONCLUSION

A case report is a type of article published in medical journals. It consists of introduction, case illustration, discussion, and conclusion. For medical advancement, case report always involve in the development of many diseases. Writing case reports require academic and professional skills, so does sense and art of writing. Good case report has good teaching points and clinical messages. By writing case reports, clinicians can build clinical reasoning and sharpen clinical instinct. In the future, the case report still needed to bring new perspectives,
horizons, and evidence for the management of specific diseases, along with other clinical studies to give the best management for the purpose of academics, professionals, and patient’s care.

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