Editorial:

CASE REPORT: WHY, WHAT FOR AND HOW

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THE IMPORTANCE OF CASE REPORTS

When analyzing Medicine based on the scientific method, a transversal dialectical process becomes evident, since its construction as a science is founded on the fact that knowledge is constantly challenging itself through experimentation and new observations. Such dialectical phenomenon is not the only one that defines Medicine as a science: readiness to create new hypotheses about health-disease processes that cannot be explained with current knowledge is also part of this.

This search for truth mechanisms in Medicine is especially applicable when its object of study is the biological machine that makes up humans. This conception of Medicine — which could be called positivist— is limited and impractical if applied in isolation, although there are strong attempts to clearly define its object of study from reductionism because of the complexity of humans as a biological phenomenon and as a social, ethical and political entity.

However, the positivist approach to Medicine is, at the same time, one of its fundamental components. In turn, case reports become a powerful investigative tool for such approach and a communication mechanism for clinical practice; it is the most efficient way of detecting atypical events in health-disease process, either generated by novelty or by peculiarity (1).

That each tool and research approach are applicable and are limited must be clear (1). Evidence-based Medicine (EBM), as a substantial instrument for clinical practice, emerges and is defined by the intention to support diagnostic and therapeutic clinical decisions, and to determine the prognosis of the disease (2). Nevertheless, defining EBM only based on randomized clinical trials is a mistake; therefore, suggesting that clinical cases are excluded is false. Thus, clinical cases can also be, sometimes, decisive evidence with the highest quality (3,4).

Although clinical decision is the ultimate goal of medicine, it is not its only goal. The discovery of new diseases, how they generate and the behavior of a healthy body are also research objectives for Medicine. In that sense, randomized clinical trials lose effectiveness to detect new diseases or its variants, since their focus is on population, and inferential and descriptive statistics are their backbone. In consequence, they have little power to discover rare or novel variations of the disease, because they are intended to study trends and average values of morbid phenomena.

Thus, case reports —understood as a way of communicating that which is atypical and new— contributes substantially in areas where large-scale population studies have limitations (5). Hence, the role of case reports in positivist medicine, as described above, is sufficient to demonstrate their importance, but this is not its only use. Table 1 shows other scenarios in which case reports have an important role.

Evidence of the potential usefulness of case reports in various scenarios and their resurgence as an investigative method is found in the significant increase of specialized journals about the topic in the last decade (6).

Table 1. Usefulness of case reports in medical and related sciences.

<table>
<thead>
<tr>
<th>Study of health and disease</th>
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<tbody>
<tr>
<td>Recognition of new diseases</td>
</tr>
<tr>
<td>Description of atypical variants of known diseases</td>
</tr>
<tr>
<td>Report of rare diseases</td>
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</table>

(1) Evidence-based Medicine (EBM), as a substantial instrument for clinical practice, emerges and is defined by the intention to support diagnostic and therapeutic clinical decisions, and to determine the prognosis of the disease. However, defining EBM only based on randomized clinical trials is a mistake; therefore, suggesting that clinical cases are excluded is false. Thus, clinical cases can also be, sometimes, decisive evidence with the highest quality.

(2) Although clinical decision is the ultimate goal of medicine, it is not its only goal. The discovery of new diseases, how they generate and the behavior of a healthy body are also research objectives for Medicine. In that sense, randomized clinical trials lose effectiveness to detect new diseases or its variants, since their focus is on population, and inferential and descriptive statistics are their backbone.

(3) Thus, case reports —understood as a way of communicating that which is atypical and new— contributes substantially in areas where large-scale population studies have limitations.

(4) Hence, the role of case reports in positivist medicine, as described above, is sufficient to demonstrate their importance, but this is not its only use. Table 1 shows other scenarios in which case reports have an important role.

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(6) Table 1. Usefulness of case reports in medical and related sciences.
CLARIFYING OBJECTIVES

The first step to report a case is the result from a thorough clinical work summarized in:

- Committed, rational and systematic patient care.
- Willingness to observe.

- Willingness to study and deepen medical education.
- Capacity to be surprised.
- Reflective, critical and self-critical attitude.

Case reports, rather than a form of publication, are the result of a deep commitment of the physician to the patient and to study, which leads to determine the novelty and merit of sharing a particular clinical phenomenon, since it could be the input to deepen the knowledge in medicine (e.g. the atypical presentation of a disease, the results of a therapy, the usefulness of a diagnostic method, among others).

Based on this, when a case report is proposed, clarifying the objectives of the report must be sought. In this sense, the following fundamental questions are proposed whenever a case report is intended:

What do I want to communicate as novel or useful for Medicine? What implications does the observation that I want to report have? Does it contradict current knowledge on certain pathology? Does it expand what is currently known about this disease? Is it something anomalous, unexplained or unexpected? Does it exemplify and clarify a disease?

Based on the clarity given by the answers to these questions, exposure and discussion of the clinical case should be developed, since they are the guidelines to reach the goal, transmit a clinical observation and propose its implications.

HOW TO REPORT A CASE

Judicious clinical practice and clear objectives are two of the pillars of case report. The third is the way how information is communi-
cated, the accuracy of the case report, which will define its usefulness for the knowledge of the disease. This, if done properly, will allow comparison with other cases or make it part of the foundation of other research methodologies through which the validity of the hypothesis of the case reported can be assessed (5.7).

Also, various organizations and medical journals have realized the need to generate quality standards in the way how cases are reported. One of the most important initiatives is the development of CARE consensus and guidelines (acronym for CAse REport), formally published in 2013 in various journals (8). This guideline is accepted by Revipta Case Reports and is recommended as a guideline for case reports.

With this in mind, the suitability of a clinical case report is based on three characteristics:

- Transparency
- Full descriptions
- Precision

Transparency involves ethical and epistemological commitment, by those who report, to exposing the case fully and truthfully, including limitations, omissions and errors. This principle determines the compression of medical practice as an imperfect process, with, frequently, limited resources and proneness to error as any human activity. Similarly, understanding the imperfection of clinical practice is seen as an invitation to continuous improvement and transparent case report is an ideal strategy for this.

On the other hand, complete and accurate descriptions are necessary for the case to provide sufficient tools which help corroborating or rejecting hypotheses derived from observation (9). It includes, therefore, adequate sociodemographic identification of the patient, account of symptoms and background, physical examination, reasoning and diagnostic strategies, therapeutic approach, patient monitoring and, finally, outcome of the case. In addition, the limitations of the case should be explained, discussion about it should be established, hypotheses defined and conclusions and derived lessons proposed. CARE guide presents each of these aspects summarized in the items presented in Table 2.

<table>
<thead>
<tr>
<th>Topic</th>
<th>Item</th>
<th>Checklist item description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title</td>
<td>1</td>
<td>The words “case report” should be in the title along with the area of focus</td>
</tr>
<tr>
<td>Keywords</td>
<td>2</td>
<td>Four to seven key words—include “case report” as one of the key words</td>
</tr>
<tr>
<td>Abstract</td>
<td>3a</td>
<td>Background: What does this case report add to the medical literature?</td>
</tr>
<tr>
<td></td>
<td>3b</td>
<td>Case summary: chief complaint, diagnoses, interventions and outcomes</td>
</tr>
<tr>
<td></td>
<td>3c</td>
<td>Conclusion: What is the main “take-away” lesson from this case?</td>
</tr>
<tr>
<td>Introduction</td>
<td>4</td>
<td>The current standard of care and contributions of this case—with references (1-2 paragraphs)</td>
</tr>
<tr>
<td>Timeline</td>
<td>5</td>
<td>Information from this case report organized into a timeline (table or figure)</td>
</tr>
<tr>
<td>Patient information</td>
<td>6a</td>
<td>De-identified demographic and other patient or client specific information</td>
</tr>
<tr>
<td></td>
<td>6b</td>
<td>Chief complaint—what prompted this visit?</td>
</tr>
<tr>
<td></td>
<td>6c</td>
<td>Relevant history including past interventions and outcomes</td>
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According to this, we would like to invite our readers to conduct clinical observation and develop the capacity to be surprised which, through judicious and routine clinical practice, will allow realizing new, contradictory or unexpected phenomena that are a powerful fuel for the progress of Medicine. Then, case reports will be the log that allows communicating such observations.

Likewise, standardization of the way to report clinical cases is urgent, where transparency and accuracy allow approaching the truth in medicine for the sake of scientific accuracy and reproducibility. The CARE guide is proposed as an ideal tool for this purpose.

Finally, an invitation to enjoy this new issue of the journal is presented. We would like to congratulate all authors for their courage and hard work. You, along with readers, are the essence of this publication.

Thank you for your contributions.

**REFERENCIAS**

3. Hauben M, Aronson JK. Gold standards in pharmacovigilance: the use of definitive an-


