Editorial

Importance of case reports in anaesthesia

Importancia de los reportes de caso en anestesiología

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Definition

A case (from the Latin \textit{casus}) is defined as something that occurs (occurrence), an event or happening.\textsuperscript{1} According to the dictionary of the Royal Spanish Academy, to report is the action of conveying, communicating or giving notice.\textsuperscript{2} Although the case could be assimilated to the individual or patient, the term refers in fact to the disease or the clinical condition at hand.\textsuperscript{3} Case reports present clinical observations in a form that is particular to healthcare-related sciences.\textsuperscript{3} More specifically, they are a formal summary of a patient and his/her disease, including the presence or absence of signs and symptoms, diagnostic tests, treatment and outcomes.\textsuperscript{5}

From the methodological point of view, reports and case series may be considered observational and descriptive studies.\textsuperscript{5} Traditionally, case reports and case series have been mixed indiscriminately in the literature. Articles categorized as case series have been published with only one patient reported, and case reports have been published with more than five patients described.\textsuperscript{6} Based on statistical, epidemiological and clinical criteria, five has been recently defined as the maximum number of patients that must be described in a case report; consequently, six or more patients described are considered a case series.\textsuperscript{7}

History

In the history of medicine, case reports and case series have been an integral part of the biomedical literature. Case reports date back to 1600 B.C., in ancient Egypt.\textsuperscript{8} Similar narrative formats were found in Hippocratic manuscripts written circa 400 B.C.\textsuperscript{7} Sir William Osler (1849–1919), considered the father of modern medicine, believed that physicians had to keep detailed records of unusual situations in their clinical practice and make them public in a short and concise form.\textsuperscript{9}

In our specialty, the first case of general anaesthesia with ether in 1846 was documented in a case report published by Bigelow.\textsuperscript{10} Up to this date, this case report may be considered as one of the most important in the history of medicine.\textsuperscript{11} Table 1 summarizes some salient case reports in the history of anaesthesiology.

Since the 1940s, with the emergence of experimental designs followed by the idea and development of evidence-based medicine, great emphasis has been placed

\begin{table}[h]
\centering
\caption{Some salient case reports in the history of anaesthesiology.}
\begin{tabular}{|c|c|}
\hline
Year & Case report/Case series \\
\hline
1846 & First case of general anaesthesia with ether \\
1940s & Case reports in experimental designs \\
2010 & Evidence-based medicine \\
\hline
\end{tabular}
\end{table}

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Current situation of case reports

Rarity by itself is no justification to report a case. Reported cases must contribute to knowledge creation and must give rise to hypotheses and research questions to be solved in subsequent clinical research; they must contribute to the information on known diseases, and to their diagnosis or treatment; and they must always accomplish a clear learning objective for the reader.28–30

Up to this date, the number of case reports published continues to grow, and close to 1000 case reports (2%) of the 50 thousand indexed in MEDLINE every year relate to anaesthesiology (Fig. 1). In the Colombian Journal of Anaesthesia (Revista Colombiana de Anestesiología), close to 25% of all articles published are case reports.31

Considering that biomedical journals find themselves at a cross-roads at the present time because they need to respond to the irrefutable importance and the need for case reports on the one hand,32 and strive to increase their own impact factor on the other, editorial committees have defined more stringent criteria in terms of quality, novelty, exceptional interest, brevity and relevance of a case report for publication.33

Indeed, the recent CARE declaration (from CAsE REPorT) stated the guidelines that must be followed by all manuscripts of this type.3

Along these same lines, clearly recognizing the importance of case reports in anaesthesia, very prestigious journals have made the decision of transferring case reports34,34 from their core publications to new journals exclusively devoted to case reports.35

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Table 1 – Classic case reports and case series in anaesthesiology.

<table>
<thead>
<tr>
<th>Year and author</th>
<th>Reason for the report</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>1846 Bigelow</td>
<td>First general anaesthesia with ether (Dr William Morton, October 16, 1846)</td>
<td>10</td>
</tr>
<tr>
<td>1847 Simpson</td>
<td>General anaesthesia with chloroform</td>
<td>12</td>
</tr>
<tr>
<td>1848 Anonymous</td>
<td>Death attributable to general anaesthesia with chloroform in a 15-year-old patient taken to a minor procedure</td>
<td>13</td>
</tr>
<tr>
<td>1899 Bier</td>
<td>Effect of the intrathecal cocaine injection, including the description of post-dural puncture headache</td>
<td>14</td>
</tr>
<tr>
<td>1921 Pagés</td>
<td>Epidural anaesthesia</td>
<td>15</td>
</tr>
<tr>
<td>1946 Mendelson</td>
<td>Pulmonary aspiration syndrome in obstetric patients</td>
<td>16</td>
</tr>
<tr>
<td>1950 Winterbottom</td>
<td>Intraoperative awakening</td>
<td>17</td>
</tr>
<tr>
<td>1960–62 Denborough</td>
<td>Malignant hyperthermia</td>
<td>18,19</td>
</tr>
<tr>
<td>1963 Brody</td>
<td>Halothane-related hepatitis</td>
<td>20</td>
</tr>
<tr>
<td>1975 Harrison</td>
<td>Successful treatment of malignant hyperthermia with dantrolene</td>
<td>21</td>
</tr>
</tbody>
</table>

Source: Authors.
Consistent with all of the above, the Colombian Journal of Anaesthesia recently adhered to the CARE declaration guidelines in order to move towards the standardized format in which case reports are published. Moreover, as proof of the journal's commitment regarding the importance of case reports as a valid strategy for scientific dissemination, this issue includes six case reports and one case series. They were all subjected to a peer review process, they adhere most certainly to modern writing standards, and they will contribute to the educational objectives that readers expect from these types of primary studies.

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Conflict of interest

None known.

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