



How to write an introduction section of a scientific article?

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ABSTRACT

An article primarily includes the following sections: introduction, materials and methods, results, discussion, and conclusion. Before writing the introduction, the main steps, the heading and the familiarity level of the readers should be considered. Writing should begin when the experimental system and the equipment are available. The introduction section comprises the first portion of the manuscript, and it should be written using the simple present tense. Additionally, abbreviations and explanations are included in this section. The main goal of the introduction is to convey basic information to the readers without obligating them to investigate previous publications and to provide clues as to the results of the present study. To do this, the subject of the article should be thoroughly reviewed, and the aim of the study should be clearly stated immediately after discussing the basic references. In this review, we aim to convey the principles of writing the introduction section of a manuscript to residents and young investigators who have just begun to write a manuscript.

Key words: Article; introduction; scientific

Introduction

When entering a gate of a magnificent city we can make a prediction about the splendor, pomposity, history, and civilization we will encounter in the city. Occasionally, gates do not give even a glimpse of the city, and it can mislead the visitors about inner sections of the city. Introduction sections of the articles are like gates of a city. It is a presentation aiming at introducing itself to the readers, and attracting their attention. Attractiveness, clarity, piquancy, and analytical capacity of the presentation will urge the reader to read the subsequent sections of the article. On the other hand as is understood from the motto of antique Greek poet Euripides "a bad beginning makes a bad ending", 'Introduction' section of a scientific article is important in that it can reveal the conclusion of the article.^[1]

It is useful to analyze the issues to be considered in the 'Introduction' section under 3 headings. Firstly, information should be provided about the general topic of the article in the light of the current literature which paves the way for the disclosure of the objective of the manuscript. Then the specific subject matter, and the issue to be focused on should be dealt with, the problem should be brought forth, and funda-

mental references related to the topic should be discussed. Finally, our recommendations for solution should be described, in other words our aim should be communicated. When these steps are followed in that order, the reader can track the problem, and its solution from his/her own perspective under the light of current literature. Otherwise, even a perfect study presented in a non-systematized, confused design will lose the chance of reading. Indeed inadequate information, inability to clarify the problem, and sometimes concealing the solution will keep the reader who has a desire to attain new information away from reading the manuscript.^[1-3]

First of all, explanation of the topic in the light of the current literature should be made in clear, and precise terms as if the reader is completely ignorant of the subject. In this section, establishment of a warm rapport between the reader, and the manuscript is aimed. Since frantic plunging into the problem or the solution will push the reader into the dilemma of either screening the literature about the subject matter or refraining from reading the article. Updated, and robust information should be presented in the 'Introduction' section.

Then main topic of our manuscript, and the encountered problem should be analyzed in the

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light of the current literature following a short instance of brain exercise. At this point the problems should be reduced to one issue as far as possible. Of course, there might be more than one problem, however this new issue, and its solution should be the subject matter of another article. Problems should be expressed clearly. If targets are more numerous, and complex, solutions will be more than one, and confusing.

Finally, the last paragraphs of the 'Introduction' section should include the solution in which we will describe the information we generated, and related data. Our sentences which arouse curiosity in the readers should not be left unanswered. The reader who thinks to obtain the most effective information in no time while reading a scientific article should not be smothered with mysterious sentences, and word plays, and the readers should not be left alone to arrive at a conclusion by themselves. If we have contrary expectations, then we might write an article which won't have any reader. A clearly expressed or recommended solutions to an explicitly revealed problem is also very important for the integrity of the 'Introduction' section.^[1-5]

We can summarize our arguments with the following example (Figure 1). The introduction section of the exemplary article is written in simple present tense which includes abbreviations, acronyms, and their explanations. Based on our statements above we can divide the introduction section into 3 parts. In the first paragraph, miniaturization, and evolvement of paediatric endourological instruments, and competitions among PNL, ESWL, and URS in the treatment of urinary system stone disease are described, in other words the background is prepared. In the second paragraph, a newly defined system which facilitates intrarenal access in PNL procedure has been described. Besides basic references related to the subject matter have been given, and their outcomes have been indicated. In other words, fundamental references concerning main subject have been discussed. In the last paragraph the aim of the researchers to investigate the outcomes, and safety of the application of this new method in the light of current information has been indicated.

Apart from the abovementioned information about the introduction section of a scientific article we will summarize a few major issues in brief headings

Important points which one should take heed of:

1. Abbreviations should be given following their explanations in the 'Introduction' section (their explanations in the summary does not count)

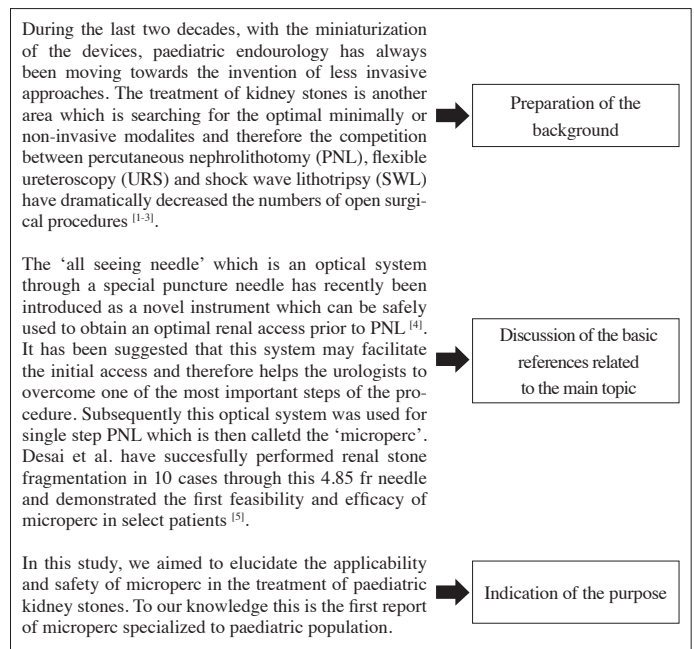


Figure 1. An exemplary introduction section of an article

2. Simple present tense should be used.
3. References should be selected from updated publication with a higher impact factor, and prestigious source books.
4. Avoid mysterious, and confounding expressions, construct clear sentences aiming at problematic issues, and their solutions.
5. The sentences should be attractive, tempting, and comprehensible.
6. Firstly general, then subject-specific information should be given. Finally our aim should be clearly explained.

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