



Necessity of professional medical illustration for increasing the value of the journal

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TO THE EDITOR

A medical illustration is an artistic visualization, executed in either a physical or digital space, that aims to present information relevant to the fields of medicine and biology [1]. They are defined as illustrations that contain and convey medical information and are commonly used in surgical records, figures in medical journals, and patient instructions to improve the readability and comprehensibility of these respective documents [2]. Medical illustrations have been used in medicine for a long time: more precisely, since approximately 1500 years ago, when Andreas Vesalius published an anatomical drawing book [3]. Since the era of Leonardo da Vinci and his portrayal of the human physique, there have been significant advancements in representations of the human body. Art has progressively transformed from traditional illustrations to digital imaging, driven by technological advancements in the digital age. Accurate and intuitive

illustrations are most effective for conveying information in various disciplines rooted in medicine, such as anatomy, embryology, physiology, neuroanatomy, and all fields related to surgery or medical education [4,5]. In some countries (United States, Canada, United Kingdom, France, Netherlands, etc.), there are specialized programs in graduate and/or undergraduate schools [6]. After completing these programs, individuals must clear the Certified Medical Illustrator (CMI) exam to qualify and work as professional medical illustrators [7]. However, many physicians engaged in medical education or research are unaware of this.

The accuracy of medical illustrations is crucial, especially in clinical fields closely related to anatomy, such as surgery or interventional procedures, because they are essential for providing clear guidance and explanations to both physicians and patients. However, there are discrepancies between various clinical textbooks in explanations and illustrations of the same anatomical structures. This



can lead to the dissemination of incorrect information to practitioners performing the procedures, which ultimately negatively affects patient satisfaction and outcomes [4]. Moreover, during the training process for medical specialists, clear, simple, and accurate illustrations play a significant role in explaining and understanding anatomical structures, especially during surgical education. While modern imaging techniques provide vital diagnostic information and the actual visualization of anatomy related to pain, medical illustrations offer an educational, standardized, and often more didactic approach to conveying medical and anatomical information in pain medicine [5].

Good medical illustrations can improve the quality of a research paper by efficiently conveying content to the readers [8,9]. When reviewing the articles published in the Korean Journal of Pain in 2023 (including review articles, clinical research articles, and experimental research articles only), illustrations, except graphs or charts, were found in 7.9% of the articles (3 out of 38). Among these papers, those with better crafted and higher quality medical illustrations would be expected to garner relatively high interest [10]. Professional medical illustrators provide significant benefits: They ensure complex medical concepts are clear and precise, enhancing understanding. Their illustrations increase visual appeal and overcome language barriers, potentially expanding global reach and impact. This not only adds educational value but also may boost citations and scientific recognition.

Recently, medical illustration has evolved into more diverse forms and is being featured in various research papers. Infographics, a term derived from the phrase "information graphics", effectively present medical educational content in an appealing fashion by augmenting concise text with visuals like figures, tables, and data representations through charts and graphs. It can deliver complex information through graphic visual representations [11]. And visual abstracts provide a graphical overview of the content found within a medical research abstract. A good visual abstract can also be understood easily by readers through a single, concise, pictorial summary of the methodology and the main findings [12]. In addition, with the recent advancements in Artificial Intelligence (AI), this has become an era where intricate illustrations can be created easily. Generating desired illustrations by utilizing AI to train on data related to human anatomy and various procedures is considered effective in terms of both time and cost. Various efforts involving AI-generated illustrations are being introduced [13,14].

In conclusion, for the future advancement of the journal, we suggest that the Korean Pain Society consider

supporting and actively utilizing professional medical illustrators. This strategic move can enhance the quality and impact of publications by ensuring a precise and visually engaging representation of medical concepts.

DATA AVAILABILITY

Data sharing is not applicable to this article because no datasets were generated or analyzed in this study.

CONFLICT OF INTEREST

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