

## **The levels of evidence of articles published by Indian authors in Indian journal of plastic surgery**

Sir,

In plastic surgery as in all medical specialities, evidence is the way forward to establish management options and protocols for clinical conditions. We as plastic surgeons are less attentive to the practice of evidence-based

medicine (EBM); especially in the developing world.<sup>[1]</sup> An important cornerstone of EBM is levels of evidence. There are variations in these systems of levels of evidence, but uniformly level 1 is considered the highest level of evidence, with subsequent levels considered to have weaker levels of evidence.

This study was conducted to study the levels of evidence of the articles by Indian authors published in the Indian Journal of Plastic Surgery (IJPS).

All the issues of IJPS from 2009 onwards were reviewed to identify and assign the levels of evidence to the articles. Level of evidence was assigned to the individual articles as per the guidelines by the American Association of Plastic surgeons.<sup>[2,3]</sup> As per their guidelines, animal studies, cadaver studies, review articles, instructional CMEs, editorials and correspondence were excluded from assigning the levels of evidence. In addition, obituaries, book reviews and commentaries too were excluded from assigning levels of evidence. The main objective was to assess the performance of Indian authors and not the IJPS; therefore the articles by foreign authors were excluded.

A total of 547 articles were screened. 176 articles could be assigned levels of evidence. Five articles (2.84%) had level 2 evidence, 3 articles (1.707%) had level 3 evidence, 103 articles (58.52%) had level 4 evidence and 65 article (36.93%) had level 5 evidence. We did not encounter any article with level 1 evidence. Most of the articles published by Indian Authors in IJPS are level 4 or 5 evidence.

Although level 4 and 5 evidences have their own significance, there is a need for us to conduct more prospective case-control studies and randomised control trials to improve the levels of evidence. Considerations about study quality are not mere academic exercises. They have real world consequences. Good quality research means good quality care.

Loiselle *et al.*<sup>[4]</sup> assigned a level of evidence to papers published in Plastic and Reconstructive Surgery over a 20-year period. The majority of studies (93% in 1983) were level 4 or 5, which denotes case series and case reports. Although the results were disappointing, there was some improvement with time. In 2003, the level 1 studies increased to 1.5% and level 4 and 5 studies dropped to 87% from 93%.

In our study, a total of just over 5% of the articles were level 2 and 3 evidences. This number was not significant enough to study the trends over the years. This might be because of fewer issues of IJPS as compared to PRS.

By inherent design, our speciality is innovative, and it would be wrong to assume that all articles with level 1 evidence are the best choice to answer a particular research question. Many articles dealing with innovative techniques, simple and cost effective modifications in existing techniques have an important role to play in spite of their lower level of evidence.<sup>[1]</sup>

Nevertheless, it does not take away the importance and significance of the higher level of studies.

Lack of knowledge regarding research methodologies, poor documentation and record keeping, reluctance for interdisciplinary studies are some of the likely reasons for lower levels of evidence studies in India.

Research methodology courses can be made mandatory for plastic surgery trainees. At teaching departments, we need to invest more time in the development of strategies and protocols for our studies and effective data collection. We should try and identify the barriers in the implementation of these methods.

Plan-Do-Study-Act should be our motto for every thesis topic or project allotted to our postgraduate students. In larger institutes, interdisciplinary research and research pertaining to basic sciences with respect to our speciality should be promoted.

Appropriate incentives should be given to the faculty and students for completion of studies with higher levels of evidence.

Whatever be the product of the research work, stringent protocols must be followed for implementation of study design and record keeping. Good quality research means good quality care.

### **Financial support and sponsorship**

Nil.

### **Conflicts of interest**

There are no conflicts of interest.

**Nikhil Panse, Parag Sahasrabudhe,  
Sagar Khade<sup>1</sup>**

Department of Plastic Surgery, <sup>1</sup>Department of General  
Surgery, B.J. Government Medical College and Sassoon  
Hospital, Pune, Maharashtra, India

**Address for correspondence:**

Dr. Nikhil Panse, Vimal Niwas, Sudarshan Society, Near  
Model Colony Postoffice, Shivajinagar, Pune - 411 016,  
Maharashtra, India.  
E-mail: [nikhil.panse@rediffmail.com](mailto:nikhil.panse@rediffmail.com)

**REFERENCES**

1. Ahuja RB. Ethical practice of evidence-based medicine: A review for plastic surgeons. *Indian J Plast Surg* 2013;46:11-7.
2. Burns PB, Rohrich RJ, Chung KC. The levels of evidence and their role in evidence-based medicine. *Plast Reconstr Surg* 2011;128:305-10.
3. Available from: [http://www.plasticsurgery.org/Medical\\_Professionals/Health\\_Policy\\_and\\_Advocacy/Health\\_Policy\\_Resources/Evidencebased\\_GuidelinesPractice\\_Parameters/Description\\_and\\_Development\\_of\\_Evidencebased\\_Practice\\_Guidelines/ASPS\\_Evidence\\_Rating\\_Scales.html](http://www.plasticsurgery.org/Medical_Professionals/Health_Policy_and_Advocacy/Health_Policy_Resources/Evidencebased_GuidelinesPractice_Parameters/Description_and_Development_of_Evidencebased_Practice_Guidelines/ASPS_Evidence_Rating_Scales.html). [Last accessed on 2014 Sep 30].
4. Loiselle F, Mahabir RC, Harrop AR. Levels of evidence in plastic surgery research over 20 years. *Plast Reconstr Surg* 2008;121:207e-11.

---

This is an open access article distributed under the terms of the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 License, which allows others to remix, tweak, and build upon the work non-commercially, as long as the author is credited and the new creations are licensed under the identical terms.

**For reprints contact:** [reprints@medknow.com](mailto:reprints@medknow.com)

Access this article online	
<b>Quick Response Code:</b> 	<b>Website:</b> <a href="http://www.ijps.org">www.ijps.org</a>
	<b>DOI:</b> 10.4103/0970-0358.163072

**How to cite this article:** Panse N, Sahasrabudhe P, Khade S. The levels of evidence of articles published by Indian authors in Indian journal of plastic surgery. *Indian J Plast Surg* 2015;48:218-20.