



Indian Orthopaedic Evidence



India constitutes 17.5 % of world's population . It will be safe to assume that we treat 17.5 % of Orthopaedic patients of the world. But we are not generating enough evidence. All developing countries contribute 6.7 % of world authorship in Orthopaedic Journals and India contributes 1.2 % to research published in influential Orthopaedic Journals. We are presently following the treatment guidelines given by countries or surgeons who operate much less number of patients than what we do . Because we do not publish our work , our work is not reviewed by peers. As our work is not reviewed, it is not validated. Thus years of hard work and clinical and surgical success may not get world-wide access, acceptance and recognition that it deserves. Not only that, successful and effective surgical

techniques, choice of treatments and implants practised in India, may not reach wider audience and may fail become standard of care. This may be related to the fact that research methodology teaching during Orthopaedic postgraduate training is not mandatory in India, as it is in developed countries like US & Canada .

Except in Orthopaedic departments of few highly sought-after academic institutes in our country, any research exposure is limited to submission of post-graduate dissertation. Dissertation was meant to be a means of teaching research methodology, thereby at least enabling Orthopaedic surgeons to produce scientific evidence to be published in scientific journal. However presently dissertation is reduced to a mere formality for exit exams and plagiarism is rampant. Most of the dissertation is poor quality and does not find acceptance for publication even in local or regional journals. There is no system to encourage valid, original and credible research that can be useful scientific evidence. Research beyond dissertation is rare in Indian Orthopaedics. If publication of postgraduate Orthopaedic dissertation in SCI journal is made a mandatory criterion for eligibility for exit exam and continued postgraduate teachership, it will serve multiple purposes like inculcating research attitude while in training, improve the quality of academic training, increase India's academic contribution to academic journals and provide indigenous evidence for our own utilisation.

The Hierarchy of Evidence

We all are aware of the hierarchy of evidence or the evidence pyramid. RCTs form the apex of this pyramid and case series, case reports and expert opinions are at the bottom of this pyramid. Let us examine the word 'Hierarchy' which originates from the Greek word *ἱεραρχία* hierarchia "rule of a high priest", from *ἱεράρχης* hierarkhes, "leader of sacred rites") and suggests an arrangement of items (objects, names, values, categories, etc.) in which the items are represented as being "above," "below," or "at the same level as" one another .

Hierarchy whether societal, economic or in relation to scientific evidence denotes superiority of one over another and always leads to elitism and exclusion. Science is egalitarian and inclusive. Even though research methodology is of utmost importance, no evidence is of less value as long as it is scientifically valid. Thus hierarchy of evidence may not be inclusive and representative. A good way to assign credibility to evidence would be to ascertain whether it provides subjective or objective information. Case reports are the basic blocks of scientific writing and cannot be of any less importance vis-a-vis RCT or cohort studies. But case reports traditionally do not find easy acceptance in popular journals. This is where JOCR becomes very relevant. It has been running successfully for 4 years and is accepted for indexing by Pub Med.

Importance of case reports

We 'practice of medicine' and not 'master' it. We never may. Even though we aspire to be as scientific as possible, we conveniently forget that we learn and practice 'the art and science' of medicine. The science is incomplete without the art. The evidence we refer to and are guided by does not fully account for and acknowledge 'the art' part of the practice of medicine. In a way, scientifically treating surgical cases over a period of time makes us skilled surgeons

and this treatment becomes so effective and effortless, that it becomes an art. Thus every single case that we operate and manage is a stepping stone to the practice of this art. In our daily clinical practice we encounter cases that pose multiple clinical challenges that do not have straightforward answers or sometimes even a single question that does not have a given answer. We try to find a fix to each question based on our knowledge and exposure. We are able to address these challenges successfully or occasionally fail to fix all the fragments of the clinical question in a given patient. Either way, it is worth sharing the experience for the benefit of the next surgeon or posterity. But how do you share your experience? By writing a case report and making it available for others to read. One well understood clinical question or well managed case will show the way to many. Many cases will become a series of cases and that's how we may master the art.

Thus JOCR is able to help generate a body of evidence which can be used to convey both 'Art' and 'Science' of Orthopaedic Surgery. Increasing quality of submissions and readers base indicates growing popularity of JOCR and stands testament to these principles.

Warm Regards

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