Editorial

Translating research into practice

Dear Friends

Wish you all a very happy new year!!! Hope this year brings you all success and prosperity. In the inaugural issue of this year, I once again salute the illustrious past editors of the *Indian Journal of Ophthalmology* (IJO) – Dr. SN Cooper, Dr. SRK Malik, Dr. Madan Mohan, Dr. Tony Fernandez, Dr. Tony Ittyerah, Dr. GN Rao, Dr. TP Das, and Dr. BK Nayak. Without their foresight and hard work, IJO would not have been able to reach its Diamond Jubilee year.

Research when transformed and inculcated into practice turns paper work into innovation. Zora Neale Hurston rightly said, "Research is a formalized curiosity. It is poking and prying with a purpose". The best purpose is its application into practice. The gap between research and practice can be bridged by "Translating Research Into Practice (TRIP)" - the theme of this Diamond Jubilee issue.

TRIP embodies the progression of science and research from the scientist's bench to the clinician's office. Knowledge is transferred from basic to clinical research and thence to practice settings aimed at improving public health.[1,2] An innovation or discovery in biomedical research will remain meaningful only if it serves clinical good. This issue highlights important scientific achievements from our country, which echo this principle.

The technology of telemedicine to provide clinical care, where the information is transmitted between individuals who are far from each other, is not new to the medical field. It has been widely used in the field of radiology and pathology where imaging modalities are vital.[3]

A report by Vinekar *et al*.[4] elaborates on a novel platform of telemedicine to screen and treat infants with retinopathy of prematurity (ROP) in outreach centers. The program is named Karnataka Internet Assisted Diagnosis of Retinopathy of Prematurity (KIDROP) where non-physician graders traveling to peripheral neonatal units in rural and semi-urban underserved regions of the state are trained to image ROP. Although similar programs have been shown to be effective in the Western world, this is the first study where technicians have not only been trained to capture images but also report them at the rural periphery along with a robust tele-ROP platform for remote expert validation. Interestingly, an excellent agreement was observed between technicians and retina specialists in detecting ROP. Albeit the fact that the cost-effectiveness was not assessed, promising results of this study, which is the largest pragmatic program of its kind to be reported worldwide, mandates its inclusion in routine clinical practice in those regions with a similar demographic profile.

Another article by Shanmugam[5] talks about the paradigm shift in the use of anti-VEGF antibodies such as bevacizumab, pegaptanib, and ranibizumab in the management of various vasoproliferative and degenerative disorders of the eye in the Indian population. Monoclonal antibodies have revolutionized treatment strategies of age-related macular degeneration, diabetic retinopathy, retinal venous occlusions, and choroidal neovascular membranes. A recent Cochrane systematic review[6] has concluded that these antiangiogenic agents have a definite but small effect size as compared with the conventional grid laser photocoagulation in diabetic macular edema. In addition their efficacy has also been proved in the treatment of age-related macular degeneration.[7] Before their availability, the only treatment option for this sub-group of patients was photodynamic therapy using verteporfin. Although, cost-effective studies have not been published especially in the Indian population, bevacizumab seems to be affordable and comparable to photodynamic treatment.[8] Shanmugham in this article has provided a systematic review of all the original studies of anti-VEGF used in the Indian context. He reports that bevacizumab is the most commonly used drug, albeit "off-label", with multiple use of a single vial.

Gulani[9] in this issue elaborates on a unique and a novel procedure called Corneoplastique TM, which is a boon to patients with corneal scars, corneal transplants, radial keratotomy, and previous cataract surgery and LASIK complications. This minimally invasive and aesthetic technique aims at achieving a visual acuity of 20/20 for patients with all types of refractive errors. Additionally, he describes the various modalities of corneal rehabilitation.

We hope that this TRIP issue will ignite the spark for enhancing research in India and promote the untapped research acumen in our clinicians.

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