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EMPOWERING TIMES



THINKING ALOUD

An Avoidable Blind Spot
Jay

PODIUM

Prof. Dr. S. Natarajan
Head, Vitreo-Retinal
surgery Ophthalmology
- Aditya Jyot Eye Hospital



WE RECOMMEND

Saying No to Jugaad
T. N. Hari
M. S. Subramanian

Dear Reader,

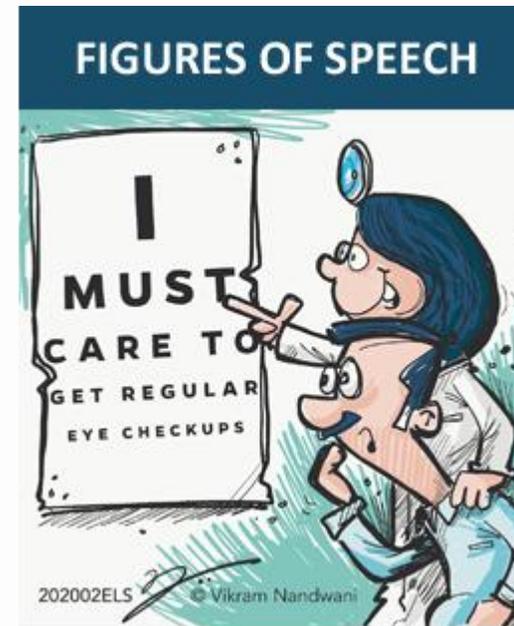
ET this month throws some light on the '**The Ophthalmology Challenge in India: A Practitioner's Perspective.**'

With around 12 million blind people against 39 million globally, India is unfortunately home to one-third of the world's blind population. Eye diseases are among the most easily overlooked medical concern in India. Some of the moderate to severe vision impairments are caused by uncorrected refractive errors, cataract, blurred vision, among others eye related ailments.

Industry experts have highlighted that the main challenges that affect eye care in India are inadequate facilities, lack of access and awareness. A comprehensive approach which focuses on eye care is needed at the primary, secondary and tertiary healthcare service levels to rise to the challenge.

Viewed from a larger scale, blindness imposes not only poor quality of life and well-being for the affected individual, but also a significant economic burden. The integration of eye care into the government's healthcare ecosystem will be required to achieve India's Vision 2020 goals. The Right to Sight, is case in point, is a program for eliminating avoidable blindness by year 2020. A collaborative initiative of the World Health Organization (WHO) and International Agency for the Prevention of Blindness (IAPB), India's Right to Sight programs and action plans are aligned with the government's National Programme for Control of Blindness for eliminating avoidable blindness.

In the **Thinking Aloud** segment, **Jay** writes about India's state of affairs in addressing issues related to the prevalence of blindness and how visual impairment can be handled. On the **Podium**, we speak to **Prof. Dr. S. Natarajan**, Chairman of Aditya Jyot Eye Hospital and President of the Indian Ophthalmological Society, who explains the various challenges impacting the ophthalmology practice in India. In the **We Recommend** section,



we review **Saying No to Jugaad** by T. N. Hari and M.S. Subramanian, which tells of the story of Bigbasket's business strategy that was built to place the customer at the center of their tech-enabled business set-up.

In **Figures of Speech**, **Vikram's** toon educates us on the importance of vision!

As always, we value your opinion, so do let us know how you liked this issue. To read our previous issues, do visit the Resources section on the website or simply [Click Here](#). You can also follow us on [Facebook](#), [Twitter](#) & [LinkedIn](#) - where you can join our community to continue the dialogue with us!

THINKING ALOUD

An Avoidable Blind Spot

Jay

It is amazing how much the sighted take the world for granted. For most people the issues associated with lack of sight only come to the fore when reading challenges emerge, whether in early childhood or post-40 years of age when suddenly a new blurriness clouds your vision and the world around you does not seem the same, and you head for the ophthalmologist.

While eventually in life everyone faces a visual challenge, is the opportunity for rectification available to all?

Take a look at some striking data: numbers indicate that of the over 39 million blind persons in the world, a third are from India. Considering the seriousness of the matter, the central government launched the National Program for Control of Blindness in 1976 and the current aim is to reduce the prevalence of blindness to 0.3% by 2020. The latest National Blindness and Visual Impairment Survey report, released in October of 2019, shows that while progress has been made over the years, we are far from the targeted number - it stands at 1.9%. The report has interesting details and it shows that the highest incidence of blindness is in Bijnor district of Uttar Pradesh, with 3.67% of the population being blind and 21.82% afflicted by visual impairment of some nature. Two other data points are worth noting: of the blind, 3.23% are illiterates (against 0.43% of the literate) and 2.14% of the blind are from the rural areas (as against 1.8% from urban habitats).

Studies also indicate that the leading cause of blindness in the world is cataract. Essentially a condition that impacts the eye lens causing discoloration which blocks light entering the pupil, it is considered an avoidable blindness by the International Agency for the Prevention of Blindness. More important, progress in medical technology has meant that this is one ailment that can be easily corrected through corrective surgery, a quick

process - 10 minutes is all it takes - with a lifetime benefit. Sadly, the national survey shows that second highest cause of blindness was complication arising from cataract surgery.

While lack of awareness for the need for surgery is a factor, at an average cost of Rs. 20 thousand (per eye), the cost of the surgery is still a factor. However, it is free in government hospitals - and 40% of operations are done here - but only 57.8% have reported good results.

While over a decade the number of cases of blindness has decreased from 12 million to 4.8 million in 2019, clearly much remains to be done. Besides cataract the other common causes of chronic blindness are glaucoma, refractive errors, age related macular degeneration, diabetic retinopathy, etc. When one considers that diabetes is a rising ailment in urban India, there is an urgent need to create greater awareness for eye care.

The challenge is vast indeed. While the World Health Organization recommends that there should be 1 eye specialist for every 20 thousand persons, like in other fields, the ratio in India is skewed with 1 per 90 thousand. What makes it worse is that of the 12 thousand ophthalmologists that we have, more than 70 % are in the urban areas whereas 70% of India is still rural. Couple this with the lack of quality medical care, and we have another mountain to climb.

In this context, it is interesting to note that some have accepted this scale challenge and created innovative responses. The most unique example is the manner in which the Aravind Eye Hospitals have created a system considered to be the McDonaldization of eye-care. Both with scale (over 400 thousand surgeries annually), minimum failure rate - an infection rate of four per thousand surgeries compared to the international norm of six per thousand surgeries - and most important at a very low price point (USD 50 as against USD 3 thousand in the United States), the Hospital's eye-care system has become a proven model over 4 decades. An object of study for institutions across the world, the best aspect of the model is that it is a social enterprise which has successfully created a hybrid business model enabling it to reach out to the under-served millions.

While blindness and visual impairment can be handled, the matter cannot be looked at in isolation. Creating a greater awareness of all aspects of medical care is important in society and this has to be coupled with better nutrition all round. Further, providing high quality affordable eye care treatment is paramount, coupled with availability of cheaper accessories (spectacles, lenses, etc.). At the other end of the spectrum is the need for Eye Banks. While awareness levels have grown in India, there is still a huge demand and supply gap and a greater

push would help in treating corneal blindness through eye transplants.

The next time you see a visually challenged person, ask yourself how you can contribute to improve the world of the blind? Remembering Helen Keller's words would be a good start: 'The chief handicap of the blind is not blindness, but the attitude of seeing people towards them.'

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Podium

Prof. Dr. S. Natarajan

Head, Vitreo-Retinal surgery Ophthalmology - Aditya Jyot Eye Hospital



Padmashree Awardee, Prof. Dr. S. Natarajan, is an ophthalmologist who has dedicated his life for bringing back the light of the eyes. Over the last 34 years, he has performed over 30,000 exclusive vitreo-retinal surgeries. The Prestigious International Council of Ophthalmology has appointed him as ICO Board of Trustees for 2018-2020. The SAARC Academy of Ophthalmology (SAO) honored him with the "SAO Excellence Award" for 2018. Prof. Dr. S. Natarajan was also invited as a coordinator for the World Forum of Ophthalmological Journal Editors program at WOC 2018. He is invited to teach as well as speak in prestigious universities across the globe and his work has been published in hundreds of international journals. In the last three decades, he has served in various capacities at world-renowned organizations. At present, he is the President of International Society of Ocular Trauma Asia-Pacific Ophthalmic Trauma Society, Ocular Trauma Society of India and the President of the All India Ophthalmological Society (AIOS).

He is also the recipient of several other international awards for his exemplary work in Ophthalmology, including the Gusi Peace Prize, Philippines, "Man of the Millennium (Ophthalmology)" Award by the Wisitex Foundation, the "Distinguished Service Award" bestowed by the Asia Pacific Academy of Ophthalmology (APAO) in Singapore, among other awards.

Dr Natarajan established a non-profitable Public Charitable Trust, Aditya Jyot Foundation for Twinkling Little Eyes in 2005. The initiative sowed seeds during visit of Dr. A. P. J. Abdul Kalam, former President of India on his visit to the eye hospital founded by Dr Natarajan. The Foundation has conducted several diabetic retinopathy camps and screened over 70,000 people and over 60,000 children. Through the door to door campaign, the Foundation has

covered over 200,000 households, over 1 million people in slums and performed over 5,000 free surgeries. The Aditya Jyot Foundation is committed to reduce both avoidable and unavoidable blindness.

ET: According to WHO, globally, at least 2.2 billion people have a vision impairment or blindness. What are the causes of this impairment?

SN: According to WHO, the 1 billion out of the 2.2 billion could have been prevented or has yet to be addressed. These include moderate to severe distance impairment or blindness due to unaddressed refractive error (123.7 million), cataract (65.2 million), glaucoma (6.9 million), corneal opacities (4.2 million), diabetic retinopathy (3 million), trachoma (2million) as well as near vision impairment due to unaddressed presbyopia (826 million).

Globally, the leading causes of vision impairment are: uncorrected refractive errors, cataract, age related macular degeneration, glaucoma, diabetic retinopathy, corneal opacity and trachoma.

ET: What are the challenges impacting the ophthalmology practice in India and how can it be tackled?

SN: Challenges impacting the Ophthalmology practice are divided into:

A. RELATED TO DOCTORS

- Doctors of varied training background (some are trained well in sub-specialty also and some have not learnt basic surgery during post graduation (PG)).
- With the increasing number of ophthalmologists, job opportunities are decreasing especially in bigger cities. Even sub specialists are finding it hard to get good jobs in their city of choice.
- Practical aspects of funding instruments, setting up operation theaters, maintaining ophthalmic set ups, taxes, medico legal aspects are not taught to PGs/fellows to establish a fully functional medical environment.
- Ophthalmology training is rigorous and long, with very less stipend.
- Record keeping and sharing.
- Insurance related issues (example: premium IOLs, refractive surgery, etc.)

Remedies:

- Common standard of exit exams - practical, theory & surgery - a type of board certification.
- Move to smaller cities where there are requirements.
- Starting a group practice, understanding, and mandatory classes about medico legal aspects, financial aspects, operation theater design etc.
- Options to fund training years independently via loan / future work bond / or improving pay.
- Electronic health records compatible across machines and systems.
- Strict dialogue between united doctors and insurance companies.

B. RELATED TO PATIENTS

- Lack of awareness in general population about eye health and the need for regular check-ups.
- Lack of annual health checkup (including detailed ocular exam to detect diseases in nascent stages).
- Difficult access to eye surgeons from remote areas.
- Over the counter availability and use of steroid eye drops leading to side effects (prescription by quacks, medical shops).
- Over the counter and excessive use of antibiotics leading to drug resistance.
- Poor implementation of refractive error screening in school age.

Remedies:

- Increasing educational and information initiatives in rural and urban areas.
- Starting annual health check-ups, including ocular examination, as part of insurance or schemes (will reduce cost of treatment ultimately by timely detection).
- Tele ophthalmology.
- Strict eye drop dispensing only if prescribed by eye surgeon and up to time prescribed only.
- Increasing compulsory school eye screening and repeats each year.

ET: Technology plays an important role in medical sciences. Can you elucidate how technology is integrated in the ophthalmology practice?

SN: In a country where the ophthalmologist to patient ratio is 1:70,000, technology must play a significant role to bridge the gap.

Affordable point of care devices integrated with remote diagnosis over the cloud attempts to help in preventative care with the ophthalmologist sitting in towns and cities, whereas the patients can be in villages and towns.

This is further enhanced by Artificial Intelligence (AI), which can help to assist ophthalmologist by automatic detection of eye problems using machine learning deep learning algorithms.

Further, disease management can be supported by technology for qualified patients ensuring the time of the ophthalmologist or patient is saved at the same time ensuring there is no vision threatening problems with continuous remote monitoring.

Technology is helping ophthalmic practices get organized and data driven (with cloud based EMRs), efficient (with multimodal medical devices), smart (with AI assist) and finally patient centric (with simple and affordable photo documentation systems).

ET: What is your advice to readers on caring for our vision especially at the workplace?

SN: The common vision problem at workplace:

A. **Computer Vision Syndrome / Digital Eye Strain (CVS / DES):**

Solutions

- 20-20-20 Rule i.e., every 20 minutes, look at something 20 feet away for 20 seconds.

- Eye drops and regular eye examination.
- Using computer glasses / anti-glare screens.
- Proper workstation i.e., the computer should be approximately 30 inches away from your eyes in a well lit area, sitting upright on the chair while looking at the center of the computer.

B. **Mobile related eye problems:**

Solutions

- Minimize glare / adjust the brightness.
- Hold the mobile phones farther away.
- Take breaks, **BLINK** often.

C. **DRY EYES:**

An average person blinks 18 times a minute. At the workplace, they blink less than half of the amount.

Solutions

- Simple and Best solution is to **BLINK** often
- Artificial tears can be used if eyes feel dry.

ET: Can you tell us about your hospital, Aditya Jyot Eye Hospital, and the strides achieved so far?

SN: Aditya Jyot Eye Hospital was established in 1990 at Dadar, Mumbai. The hospital has now expanded and is housed in Central Mumbai at Wadala. The hospital is a centre for total eye care under one roof. This is the biggest single specialty hospital in Mumbai, exclusively for eye treatments. The hospital is managed by a team of about 20 doctors and 70 para-medical staff /support system. Aditya Jyot is also well equipped with a LASIK operation theatre for correction of refractive errors. It is also been rated as the number one eye hospital in Mumbai (Outlook - July 2002 issue). The institute ensures high quality, total eye care for all patients and is one of the pioneers for introducing the latest technologies for eye care in India:

1st in Asia

- Retinal endoscope.
- Preferential hyperacuity perimeter.

1st in India

- Optical Coherence Tomography-III for retina and glaucoma.
- Sutureless 25 Gauge Vitrectomy System.
- BIOM Wetlab.
- Twinlight Endoillumination for vitreo-retinal surgery.
- Alcon Constellation Vision System.

1st in Mumbai

- IOL Master-the revolutionary method for IOL power calculations in cataract surgery.
- Multifocal ERG.

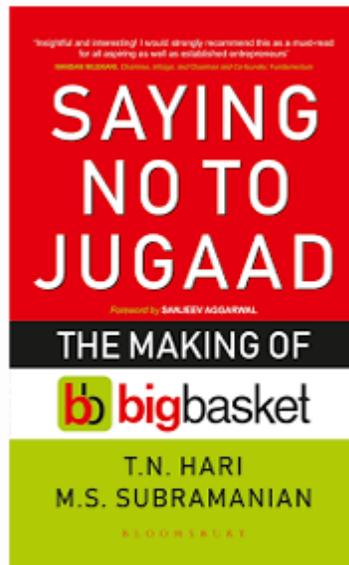
Patients are offered cross consultations with eye doctors of other sub-specialties in the hospital without any extra charges, on the same day. A pathology laboratory, pharmacy and in-house optical outlet gives the patient an advantage of availing all services under one roof without running from pillar to post. The hospital, which is a super - specialty, tertiary care set up, has at present all latest state-of-the-art equipment and provides world-class care at reasonable rates. Our focus is the treatment and care of patients with a wide range of eye problems from common complaints to rare conditions which need treatments not available elsewhere in the country. We are also a post graduate teaching centre and a national centre for ophthalmic research. The hospital continues to strive in giving its patients the latest and best possible treatment and investigation modalities in eye care.

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We Recommend

Saying No to Jugaad

T. N. Hari, M. S. Subramanian



India's largest online grocer, Bigbasket recently reported that it crossed Rs 3,200 crores in sales, up 60% over the year ended March 2019. This is evidence to the growing online grocery shopping culture which is picking up pace in India. In a press release, the company announced that it was well on its way to clock Rs 5,300 crores in the current fiscal backed by its 12 million (and growing) customer base.

The eight-year old e-grocer has come a long way. Saying No to Jugaad is a book which takes readers through the journey of Bigbasket and addresses some of the common illusions around e-commerce businesses and how this brand re-defined the grocery shopping landscape in India. From the start, the founders were very clear that Bigbasket would be an online retail company and not a tech company that also did retail. Currently, Bigbasket is using its partnership with the Chinese e-commerce giant, Alibaba to improve delivery and logistics.

The authors have succeeded in making this book an easy read while at the same time indulging into the people, processes, concepts and ideas that have shaped Bigbasket. Further, each process was as good as the person behind it. The company has always been meticulous in defining and developing processes around every aspect of customer delight. Initially, the company was not one of those flashy start-ups that drew attention in popular media. It was only when some of the unicorns began facing trouble because of excessive cash burn, poor unit economics and recurrent losses (in excess of their top lines), that Bigbasket drew attention. This is a story of how Bigbasket managed these issues at every stage and drew respect, without being influenced by practices that some of the newly minted unicorns had popularised.

The increasing competition in e-commerce and food tech for the right talent had also resulted in high attrition rates across industry. Only talent in the technology sector could call the shots. However, at Bigbasket, the belief to do the right thing stood out – they hired candidates who were trainable and demonstrated good attitude. To keep up with the quality of services, Bigbasket had also put together a strong audit mechanism to ensure that the business ran smoothly.

Concepts such as deals with fresh produce, data analytics, frugal marketing and scaling a start-up have been explained. An entire chapter is dedicated to key takeaways which can help one at an individual level or if one were to run a company. Overall, this is an inspiring story of the evolution of a start-up where sustainably is the key rather than chasing valuation.

T. N. Hari is an advisor and sounding board to numerous young entrepreneurs and start-ups. He is also a Strategic Advisor at 'Fundamentum' and heads HR at Bigbasket. M.S. Subramanian currently heads the analytics function at Bigbasket. With over 20 years in analytics leadership, he has worked with companies like Dell, McKinsey, Infosys, Ernst & Young and PwC.

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THROUGH THE LENS



Nature photographer, **Rupesh Balsara**, spots the Glossy Ibis, a migratory bird widely found in Europe, Asia, Africa, Australia and Americas. This wading bird inhabits shallow lakes and feeds on fish, lizards, small snakes and insects. They nest on trees and breed during April to June.

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