Optometry DistList

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Date: Friday, 12 February 2016

From: Stephen Davis (S.Davis@brienholdenvision.org)

Subject: Global Prevalence of Myopia and High Myopia and Temporal Trends from 2000 through 2050

Purpose: Myopia is a common cause of vision loss, with uncorrected myopia the leading cause of distance vision impairment globally. Individual studies show variations in the prevalence of myopia and high myopia between regions and ethnic groups, and there continues to be uncertainty regarding increasing prevalence of myopia.

Design: Systematic review and meta-analysis.

Methods: We performed a systematic review and meta-analysis of the prevalence of myopia and high myopia and estimated temporal trends from 2000 to 2050 using data published since 1995. The primary data were gathered into 5-year age groups from 0 to \geq 100, in urban or rural populations in each country, standardized to definitions of myopia of -0.50 diopter (D) or less and of high myopia of -5.00 D or less, projected to the year 2010, then meta-analyzed within Global Burden of Disease (GBD) regions. Any urban or rural age group that lacked data in a GBD region took data from the most similar region. The prevalence data were combined with urbanization data and population data from United Nations Population Department (UNPD) to estimate the prevalence of myopia and high myopia in each country of the world. These estimates were combined with myopia change estimates over time derived from regression analysis of published evidence to project to each decade from 2000 through 2050.

Results: We included data from 145 studies covering 2.1 million participants. We estimated 1406 million people with myopia (22.9% of the world population; 95% confidence interval [CI], 932–1932 million [15.2%–31.5%]) and 163 million people with high myopia (2.7% of the world population; 95% CI, 86–387 million [1.4%–6.3%]) in 2000. We predict by 2050 there will be 4758 million people with myopia (49.8% of the world population; 3620–6056 million [95% CI, 43.4%–55.7%]) and 938 million people

with high myopia (9.8% of the world population; 479-2104 million [95% CI, 5.7%-19.4%]).

Conclusions: Myopia and high myopia estimates from 2000 to 2050 suggest significant increases in prevalences globally, with implications for planning services, including managing and preventing myopia-related ocular complications and vision loss among almost 1 billion people with high myopia.

For full article, please visit: <u>http://www.aaojournal.org/article/S0161-6420(16)00025-</u>7/fulltext

Date: Saturday, 20 February 2016

From: Deepika Kommanapalli (<u>deepikak.opt@gmail.com</u>)

Subject: Visual and flight performance recovery after PRK or LASIK in helicopter pilots

Introduction: Refractive surgery, specifically photorefractive keratectomy (PRK) and laser in situ keratomileusis (LASIK), is becoming more accepted in the military environment. Determination of the impact on visual performance in the more demanding aviation environment was the impetus for this study.

Methods: A prospective evaluation of 20 Black Hawk pilots pre-surgically and at 1 week, 1 month, and 6 months postsurgery was conducted to assess both PRK and LASIK visual and flight performance outcomes on the return of aviators to duty.

Results: Of 20 pilots, 19 returned to flight status at 1 month after surgery; 1 PRK subject was delayed due to corneal haze and subjective visual symptoms. Improvements were seen under simulator night and night vision goggle flight after LASIK; no significant changes in flight performance were measured in the aircraft. Results indicated a significantly faster recovery of all visual performance outcomes 1 week after LASIK vs. PRK, with no difference between procedures at 1 and 6 months. Low contrast acuity and contrast sensitivity was only weakly correlated to flight performance in the early post-operative period.

Discussion: Overall flight performance assessed in this study after PRK and LASIK was stable or improved from baseline, indicating a resilience of performance despite measured decrements in visual performance, especially in PRK. More visually demanding flight tasks may be impacted by subtle changes in visual performance. Contrast tests are more sensitive to the effects of refractive surgical intervention and may prove to be a better indicator of visual recovery for return to flight status.

Article Source: <u>http://www.ncbi.nlm.nih.gov/pubmed/17571652</u>

For full text, please visit:

http://docserver.ingentaconnect.com/deliver/connect/asma/00956562/v78n6/s1.pdf ?expires=1455943482&id=86105442&titleid=8218&accname=Guest+User&checksum= AFC436FC99216BFECFE9ECCBE4755318

SPIO was started by Eye Research Center & Dr. Agarwal's Eye Hospital in the year 2006. It was started with an ambition to prepare a cadre of Optometrist to serve the need of society. It is currently situated in heart of city in Greams road. The campus is located in Ranganayaki building 3rd floor where 1st floor is being occupied by Eye Research Center.

The following courses are offered at Shri Prakash Institute of Optometry

Degree Course

• Bachelor of Science in Optometry – (3+1 year)

Optometry certificate course

- Certificate course in Retinal investigations (3 months)
- Certificate Course in corneal investigations (3 months)
- Certificate course in cataract imaging services (3 months)
- Certificate course in orthoptics (3 months)
- Certificate course in glaucoma investigations (3 months)
- Certificate course in CL (6 months)
- Certificate course in optical sales and management (3 months)

Contact Us

For admission details contact

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Date: Friday, 26 February 2016 From: Sandhya Shekar (<u>sandhya.shekar@indiavisioninstitute.org</u>) Subject: **The effect of transcranial direct current stimulation on contrast sensitivity and visual evoked potential amplitude in adults with amblyopia**

Abstract

Amblyopia is a neurodevelopmental disorder of vision that occurs when the visual cortex receives decorrelated inputs from the two eyes during an early critical period of development. Amblyopic eyes are subject to suppression from the fellow eye, generate weaker visual evoked potentials (VEPs) than fellow eyes and have multiple visual deficits including impairments in visual acuity and contrast sensitivity. Primate models and human psychophysics indicate that stronger suppression is associated with greater deficits in amblyopic eye contrast sensitivity and visual acuity.

We tested whether transcranial direct current stimulation (tDCS) of the visual cortex would modulate VEP amplitude and contrast sensitivity in adults with amblyopia. tDCS can transiently alter cortical excitability and may influence suppressive neural interactions. Twenty-one patients with amblyopia and twenty-seven controls completed separate sessions of anodal (a-), cathodal (c-) and sham (s-) visual cortex tDCS.

A-tDCS transiently and significantly increased VEP amplitudes for amblyopic, fellow and control eyes and contrast sensitivity for amblyopic and control eyes. C-tDCS decreased VEP amplitude and contrast sensitivity and s-tDCS had no effect. These results suggest that tDCS can modulate visual cortex responses to information from adult amblyopic eyes and provide a foundation for future clinical studies of tDCS in adults with amblyopia.

For full article, please visit: <u>http://www.nature.com/articles/srep19280</u>

Date: Friday, 26 February 2016

From: Apoorva Chauhan (apoorva.chauhan@indiavisioninstitute.org)

Subject: Born without sight, not vision: Story of visually impaired entrepreneur

Srikanth Bolla is a 24-year-old who takes his work very seriously. This CEO of Hyderabadbased Bollant Industries, an organisation that manufactures eco-friendly, disposable consumer packaging solutions, works for 16-18 hours daily, gets a good night's sleep and makes sure he is at the top of his game.

But Srikanth is not just any entrepreneur. He was born visually-challenged. But, he made up for it with his vision. Today, he not only successfully manages his company but has also provided work for over 450 employees across four plants out of which 70 per cent are differently abled.

It was perhaps this grit and vision that got Ratan Tata interested in the company. Ratan Tata, has now invested a sum in Bollant Industries, making it one of his first non-tech investments. This is Srikanth's story.

Life, the teacher

Born in a village in Machilipatnam to farmer parents, Srikanth's life was full of challenges. "Everyone told my parents to kill me. They believed that a blind child couldn't do much, but I'm grateful that my parents didn't do that.

They brought me up with love and gave me an education," he says. From travelling fourfive kilometres to school, being pushed to the back bench in class and being ignored by all, Srikanth bore it all.

"After a while my father realised that it wasn't doing me any good so he put me in a special needs school in Hyderabad and that changed my life," he says. Srikanth went on to score 90 per cent in his Board exams but faced a problem when he wanted to take up Science after his class X.

"The authorities said that I could only take up Arts because I was blind. So I sued the government. After six months, there was a GO that said that I could take up Science, but at my own risk. Obviously no one believed that I could do it, and so I went ahead and proved them wrong," he explains.

But his problems didn't stop there. When he wanted to join IIT, they said they couldn't take him, and he didn't fight it. "Instead I applied to the top colleges in the US like MIT, Stanford, Berkeley and Carnegie Mellon. I chose MIT and I became the first international blind student to study there," he says.

One of his professors once wrote him a two-page letter. "In the letter he wrote about how proud he was of me that I would not only make it across the campus (and the campus is huge) but would always be the first student in class," he says. After his bachelors course in MIT, he was back to square one.

"What now?" was the question that plagued him. And instead of taking up a plush job in the US, he returned to where it all started — India.

Here he set up a support service platform (SAMANVAI centre for children with multiple disabilities) along with likeminded individuals to rehabilitate differently-abled people.

"We helped 3,000 students acquire an education and vocational rehabilitation. But then I wondered what about their employment? So when we started this social enterprise, we employed 150 differently-abled people."

Work first, everything else later

For Srikanth, work is his life. "Every day, no matter what time I get to work, I make sure to take a tour of my office. I walk around and listen to the machines and I know when the machines aren't working properly. I know how the machines sound and when I diagnose the problem, get it repaired," he says.

'A bench-mark for every person'

S.P. Reddy, investor and the company's director, heard about Srikanth, but it was only when he met him that he realised how immensely talented he was.

Ravi Mantha another investor and the company's director, along with S.P. Reddy, make it clear that they didn't invest out of sympathy. "Srikanth has vision. He knows the market requirements and he has the foresight to think about the future and that was what stood out for me," they say.

For full article, please visit: <u>http://www.deccanchronicle.com/lifestyle/viral-and-trending/210216/born-without-sight-not-vision-story-of-visually-impaired-entrepreneur.html</u>

From: Optometry Council of India (<u>info@optometrycouncilofindia.org</u>) Subject: **Optometrist (Job Opening)**

C L Gupta Eye Institute Moradabad, is looking for qualified and competent Optometrist for the following positions:

- Optometrist for Contact Lens and Cornea department
- Optometrist for Glaucoma department
- Optometrist for comprehensive Clinic.
- Faculty Optometrist for C L Gupta School of Optometry.

Remuneration offered for this position will be based on experience, qualification and skills. Preference will be given to optometrists having fellowship from esteemed organisation.

Contact Person: Md.Mossab Omair

Mail your CV to: mossab@clgei.org or education@clgei.org

Log on to <u>www.clgei.org</u> to know more about the institute, its activities and future expansions.

For more information, please write to Md.Mossab Omair (mossab@clgei.org)

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