

The aesthetic eye

Dear Friends,

Beauty lies in the beautiful eyes of the beholder is something that scientists have begun to question. In fact evolutionary psychology has shown that beauty has a strong correlation with good health. An individual's identity is formed by the alignment of eyes, mouth and nose which are targets of gaze. Reports have shown that an attractive face gives the impression of being nicer, more intelligent and healthier.^[1]

One of the oldest ophthalmological conditions known to occur in human beings is strabismus which affects the overall appearance of an individual. Information obtained from Mayan inscriptions suggests that strabismus was induced as an act of appeasement to Gods. Another condition documented from ancient Egyptian civilization dating back to 2750 BC revealed pharaohs with horizontal nystagmus.^[2]

Strabismus is indirectly associated with poor quality of life.^[3] Individuals with strabismus have been reported to have low self-esteem and inter-personal conflicts affecting the psychosocial part of life.^[4] An earlier study has reported that individuals with diplopia had nonspecific negative feelings, general disability while the concerns of those without diplopia were their appearance to others, eye contact and interpersonal relationships.^[5] An individual who interacts with a person having strabismus may have varied opinions on personality traits of the subject.^[6] This has even been shown to affect their employment status.^[7] Kothari *et al.*, in this issue has done an observational study on the perceptions of non-medical professionals in 10 digitally inducing large angle strabismus individuals using a 10-item questionnaire. The authors have found more negative impact amongst the esotropia than exotropia and hypertropia. Considering these aspects, surgical correction of strabismus has gained importance as they modify perception. Alam *et al.* in this issue has evaluated the gain in overall and psychosocial functions following successful strabismus surgery using the adult strabismus questionnaire, adult strabismus 20 in 30 individuals with horizontal strabismus. Overall, psychosocial and functional scores were significantly improved in patients at 6 weeks and 3 months following correction with females performing better. Although, placebo effect cannot be ruled out in the present study as was shown to exist in an earlier one,^[5] a careful preoperative counselling becomes essential before considering a patient for strabismus surgery. Although surgical correction has been the mainstay of management of strabismus, recently agents such as ADAL-1, fibrin glue, hyaluronate, mitomycin C, daunorubicin and ADCON-L are being investigated as surgical adjuvants.^[8]

As an additional bonus to the readers, we have also included articles on e-learning and application of nanotechnology in ophthalmology. Internet has revolutionized the whole world in all the fields including medicine. E-learning is the use of internet technologies to enhance knowledge and performance and also offer to gain good control over the content and decide the sequence, pace and time of learning and so learning can be personalized as per individual needs.^[9] Many techniques such as digital repositories or digital libraries have been recommended for e-learning. Research on web-based learning have been in post since 1980's and have shown that computers would become ubiquitous tools for managing medical knowledge. Also, some of the medical schools have made it mandatory for all medical students to have a computer of their own.^[10,11] A previous study has established that majority of students agree that e-learning should be offered as a supplement to traditional lectures and seminars.^[12] E-learning also addresses the shortage of faculty by supplementing instructions to the students. They have to be flexible to accommodate the student's needs, easy to use and have to be updated as per the student's feedback.^[13] Considering these attributes, e-learning has been tried in different fields of medicine.^[14] Bandhu *et al.*, in this issue has shared their experience on web-based learning in ophthalmology for the undergraduate medial students. All students agreed that e-learning is useful and nearly two-thirds of the students opined that it should be the medium of instruction in all the subjects.

Current topical formulations of ophthalmic drugs have several limitations, one of which is low penetration and hence, low bioavailability. Major factors contributing to poor availability of the drugs include resistant cornea and a high tear flow washing away most of the administered agents.^[15] Nanotechnology involves the use of materials and devices that are in the scale of around 100 nm.^[16] It has been applied in various biomedical fields such as diagnostics, drugs and prosthetic implants. Sharma *et al.*, in this issue has discussed in detail about the current perspective of nanotechnology based therapy in the field of ophthalmology. Recently, corneal collagen cross-linking has been described as a promising therapy for keratoconus where new biocompatible riboflavin-based nanoemulsions were administered topically through eyes in pre-clinical studies.^[17] Despite these advantages, the cons of applying nanotechnology are their long term risks to human health which is unknown.

Beauty lies in the eyes of the beholder;

Face is the index of mind;

Ophthalmology plays a great role in bringing life to famous quotes like these.

Beautiful reading!!!

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References

1. Bashour M. History and current concepts in the analysis of facial attractiveness. *Plast Reconstr Surg* 2006;118:741-56.
2. von Noorden GK. The history of strabismology. Oostende: J.P. Wayenborgh; 2002.
3. Baker JD. The value of adult strabismus correction to the patient (2nd Marshall M. Parks Lecture). *J AAPOS* 2002;6:136-40.
4. Beauchamp GR, Black BC, Coats DK, Enzenauer RW, Hutchinson AK, Saunders RA, *et al*. The management of strabismus in adults - III. The effects on disability. *J AAPOS* 2005;9:455-9.
5. Hatt SR, Leske DA, Kirgis PA, Bradley EA, Holmes JM. The effect of strabismus on quality of life in adults. *Am J Ophthalmol* 2007;144:643-7.
6. Olitsky SE, Sudesh S, Graziano A, Hamblen J, Brooks SE, Shaha SH. The negative psychosocial impact of strabismus in adults. *J AAPOS* 1999;3:209-11.
7. Mojon-Azzi SM, Mojon DS. Strabismus and employment: The opinion of headhunters. *Acta Ophthalmol* 2009;87:784-8.
8. Sharma P, Datta P. Strabismus and amblyopia: Recent advances. *JIMSA* 2010;23:187-91.
9. Rosenberg M. E-Learning: Strategies for delivering knowledge in the digital age. New York: McGraw-Hill; 2001.
10. Faughnan JG, Elson R. Information technology and the clinical curriculum: Some predictions and their implications for the class of 2003. *Acad Med* 1998;73:766-9.
11. Mavis BE, Smith JM. Mandatory microcomputers: Potential effects on medical school recruitment and admissions. *Med Educ Online* 1997;2:5.
12. Link TM, Marz R. Computer literacy and attitudes towards e-learning among first year medical students. *BMC Med Educ* 2006;6:34.
13. Munoz DC, Ortiz A, Gonzalez C, Lopez DM, Blobel B. Effective e-learning for health professional and medical students: The experience with SIAS-Intelligent tutoring system. *Stud Health Technol Inform* 2010;156:89-102.
14. Ruiz JG, Minter MJ, Leipzig RM. The impact of e-learning in medical education. *Acad Med* 2006;81:207-12.
15. Paulsen F. Anatomy and physiology of efferent tear ducts. *Ophthalmologe* 2008;105:339-45.
16. Zarbin MA, Montemagno C, Leary JF, Ritch R. Nanotechnology in ophthalmology. *Can J Ophthalmol* 2010;45:457-76.
17. Bottos KM, Oliveira AG, Bersanetti PA, Nogueira RF, Lima-Filho AA, Cardillo JA, *et al*. Corneal absorption of a new riboflavin-nanostructured system for transepithelial collagen cross-linking. *PLoS One* 2013;8:e66408.

Access this article online	
Quick Response Code:	Website: www.ijo.in
	DOI: 10.4103/0301-4738.138613