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THE WINDOWS OF THE BODY

'The eye has always been held the choicest gift of Nature—the most marvellous product of her plastic force—dwell on its penetrating power, on the swiftness of succession of its brilliant pictures, and on the riches which it spreads before our sense.'

Helmholtz

How fortunate are those that may echo these words and how deprived those unfortunates that cannot.

In the overcrowded syllabus of the modern medical student, ophthalmology tends to be looked upon as the stepchild of medicine. It is a specialty practised somewhere in the bowels of the general hospital by a minority group with a vocabulary not understood by most; that subject for which one goes to the final lecture so as to pick up the spot for examinations.

Even to the enlightened, the difference between an ophthalmologist and an optician often seems only one of terminology. How frequently an ophthalmologist hears the amazed patient exclaim: 'Did you really study medicine as well?'

But in spite of this lack of recognition, ophthalmology has kept apace of modern progress in medicine and results achieved are in every way as spectacular, if not more so in many instances, as those of any other branch in the profession.

Slowly the medical world is coming to accept the fact that the eyes are indeed the windows of the body—not just for looking out of, but also to look into.

Neurologists and neurosurgeons have long realized that ocular signs can be observed in more than 50% of patients with brain tumours, and physicians are well aware of the importance of the eye in a host of systemic diseases. But is the general practitioner always aware of the diagnostic possibility of ophthalmoscopy? In point of fact, can he use an ophthalmoscope, and if so, can he distinguish the normal from the abnormal? Since 'a picture is worth a thousand words', careful examination of the eye is worth a hundred thousand words.

As fascinating as it may be to the ophthalmologist to act as scrounger in the diagnostic wastepaper basket, it is still primarily his duty to prevent blindness and restore vision where possible.

Who can harden his heart against the words in the poem 'The Blind Boy' by Colley Cibber?

O say what is that thing call'd Light,
Which I must ne'er enjoy;
What are the blessings of the sight,
O tell your poor blind boy!
You talk of wondrous things you see,
You say the sun shines bright;
I feel him warm, but how can he
Or make it day or night?

Much has been done to prevent such tragic lamentations from having to be uttered, but much, much more can and must be done. The responsibility rests not only with the ophthalmologists, but with every member of the

profession, and indeed, with every member of society.

Ignorance, unfortunately, is far too often the cause of irreversible changes. Think about those that have lost central vision in a perfectly normal eye because the doctor told the mother that she should not worry about her child's squint, for it will straighten out by itself. Or more seriously still, those that lose their lives because the squint hid that tragic malignancy of childhood, called a retinoblastoma. How often does an eye not perforate because a 'conjunctivitis' has been treated with a topical steroid-containing preparation, when in fact a drop of fluorescein would have revealed the dendritic ulcer?

Alas, far too many windows are allowed to become opaque. Even so, opaque windows can often be replaced.

In the public opinion, medicine has recently entered an era of transplantation. However, as early as 1824, Franz Reisinger mentioned corneal grafting in ophthalmic literature. In 1837 S. L. Bigger reported that he had successfully grafted the traumatized eye of his pet gazelle by using the cornea of another animal.

Richard S. Kissam in 1844, was apparently the first to operate on man. He used the cornea of a pig as a graft, but the eye went opaque. It was not before 1877 that Arthur von Hippel managed to permanently improve vision in a human eye with a lamellar graft.

With the improvement in technique, the development of finer instruments, the advent of antibiotics and the establishment of eye-banks for the storage and distribution of cadaver material, keratoplasty has now become a routine procedure in many ophthalmic centres in the world (Duke-Elder).

The results obtained by correct grafting in this country compare favourably with those of any other country in the world. Indeed, many an opaque window now once again lets the light stream through uninterrupted, allowing vistas not perceived before.

Regrettably, this miracle of modern surgery becomes available to but a select few. The reason for this is an acute lack of donor material. In every ophthalmological practice scores of patients could have their vision restored if donor material were available. The public at large is, however, ignorant of this fact. People are often amazed to learn that eyes can be used despite the fact that the donor wore glasses during his or her lifetime or, in some instances, where the donor in fact had been blind.

It should be the duty of every practitioner to make the public aware of this gross shortage of donors, and to encourage his patients to bequeath their eyes. With everybody's co-operation, many a 'Blind Boy' need not say:

With heavy sighs I often hear
You mourn my hapless woe;
But sure with patience I can bear
A loss I ne'er can know.

SITPLEKGORDELS

Hoewel 'sitplekgordel' 'n swakker benaming is as 'veiligheidsgordel', is dit doelbewus as opskrif gekies. Daar is min ander maatreëls wat soveel potensiële veiligheidswaarde inhoud om sterftes en verkreupeling a.g.v. padongelukke te verminder as huis hierdie gordels. Ongelukkig beskou die meeste motoriste hierdie gordels as sitplekgordels en nie as veiligheidsgordels nie.

Volgens Henderson¹ van die Australiese Padongeluknavorsingseenheid, is al die erkende soorte veiligheidsgordels wat in motors geïnstalleer word ongetwyfeld die mees doeltreffende enkele veiligheidstoestel wat in 'n motor aangebring kan word. Vanuit die oogpunt van voorkomende geneeskunde sal dié toestel se universele gebruik 'n dramatiese effek uitoefen op die ontstellend hoë sterfte- en morbiditeitsyfer verbonde aan padongelukke.

Reeds in die eerste dekade van hierdie eeu is leer-gordels sowel in motors as in vliegtuie geïnstalleer. Die doel was om gemak in die stamperige voertuie te bevorder. Leveau van Frankryk het in 1903, met die veiligheid van die passasier in gedagte, 'n dubbel skouerharnas en skootband gepatenteer. Volgens Henderson is hierdie harnas nog steeds, in 1970, 'n toestel verkieslik bo enigiets wat vandag kommersieel beskikbaar is.

Hoewel prototipes harnas intussen gebruik is, was dit kolonel Stapp se sleeritte met skielike vaartvermindering (van 960 tot 0 km/p/u) wat bo twyfel die veiligheid van sulke toestelle bewys het. Die Chrysler- en Ford-motorfabrieke was die eerstes wat dié toestel as opsionele ekstra tot hul motors toegevoeg het. Hierna het General Motors gevolg. Die publiek was traag om dit te gebruik—deels vanweë swak publisiteit en hoë prys verbonde aan dié bykomstigheid.

Veiligheidsnavorsing is toe begin en Cornell Aeronautical Laboratories, asook die Sweedse Volvo-motorfabriek kon uit 'n ontleiding van ongeluk-verslae (wat in die een verslag 28 000 ongelukke behels het) onomstootbare bewyse ten gunste van die sitplekgordel se waarde vir oorlewing lewer. (Deur die gebruik van die toestel sal die sterftes- en morbiditeitsyfer, volgens hierdie en talle ander studies, met tussen 50 en 80% daal.) Daar is 'n geringe kans dat die gordel self 'n besering kan veroorsaak, maar dié kans is minder as 1%.²

John Volpe, sekretaris van vervoer in die V.S.A., het 'n beroep gedoen dat die outomatisches-opblaasbare sakke binne die eersvolgende paar jaar in alle Amerikaanse motors verpligtend moet wees. Intussen is die sitplekgordel egter hier en kan dit die sterftesyfer minstens halveer. In terme van die slagting op die paaie beteken dit duisende lewens in die bestek van 5 jaar.

In Australië het Henderson¹ 'n toestand gevind wat seker toepaslik is op die Suid-Afrikaanse toneel: Alle nuwe

motors kry die toestel, maar in 'n opname langs 'n snelweg is gevind dat slegs 14% van die persone op die voorste sitplek vasgegord was. Tydens spitsverkeertye in Sydney het ontmont 20% bestuurders gordels aangehad, maar later in die oggend was slegs 10% van die bestuurders in die voorstedelike verkeer só beskerm.

Besware teen die gebruik van gordels kan dalk prakties of persoonlik wees:

Prakties. Gordels is 'n oorlas. Hul pas baie persone nie goed nie. Die skouerband, in plaas van mid-klavikulêre te lê, hang of oor die skouer of druk teen die nek. Skootgordels lê nie in die gewenste 45° oor die skoot nie. Die gordels draai en krul op. In die meeste motors degenereer hulle tot 'n slordige gemors wat voortdurend in deure vasgeklap word. Selfs na 'n gordel gestel is, glip dit geleidelik tot 'n losser posisie en moet elke paar dae weer gestel word. Die meeste gespes moet met albei hande vasgemaak word. In sommige motors kan die ingegorde bestuurder dikwels nie al die beheer-knoppies en handrem met gemak bykom nie. (Die handrem-posisie is die algemeenste onbereikbare item—in 'n bekende model is die handrem in die 'af'-posisie 6 duim van die bestuurder se voet.)

Persoonlike besware. Sommige mense ontwikkel 'n engtevrees wanneer hulle vasgegord is of op enige wyse in hul bewegings beperk word. Luiheid en traak-my-nie-agtigheid is soms 'n dekmantel vir engtevrees.

In 'n opname is gevind dat 60% bestuurders wat nooit gordels gebruik nie, dit tog as die belangrikste of tweede belangrikste veiligheidsmaatreël (uit 5) beskou het.

Die ironie van hierdie bevinding is dat opvoeding nie altyd geslaag is nie. Motorryers *weet* dat gordels lewens red, net soos rokers *weet* dat sigarette longkanker en skielike hartsterftes veroorsaak. Dit help nie om die verlies van lewe se effek op die familie-eenheid te beklemtoon nie—hulle verassureer hulle mos daarteen.

'n Realistiese siening, hoewel makaber, is dat Russiese roulette met die dood gespeel word om die bevolkingsontploffing te demp.

Om die dra van gordels wetlik te verplig, sal groot besware—dikwels gegronde—uitlok tot tyd-en-wyl beter gordelaanhegting en die persoonlike besware hierbo genoem, oorkom kan word.

Soos ook elders (rook, alkohol en omgewings-besoedeling) skyn dit asof die ouerhede se groot probleem vandag is: Hoe moet die mens teen sy eie dwaasheid beskerm word? Ons kan padongeluksterftes *drasties* verminder met 'n maatreël wat reeds in die motor aanwesig is. Hoe sê die ou mense? Jy kan 'n perd tot by die water bring, maar jy kan hom nie *maak* drink nie.

1. Henderson, M. (1970): Med. J. Aust., 2, 1091.

2. Hodson-Walker, N. J. (1970): Canad. Med. Assoc. J., 102, 391.