ABC of Ophthalmology

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VISUAL DIFFICULTY IN OLD AGE

Visual problems change with age

So far as vision is concerned, there are three periods of life: up to the age of 20 (development); from 20 to 60 (maturity); and after 60 (the old eye).

These ages are characterised by the changes in refraction that occur in some children and adolescents; changes in the power of accommodation and the difficulties of the hypermetrope that occur in the latter half of middle age; and the absence of any refractive change in old age except those secondary to disease and degeneration.

Before the age of 60 nearly all disorders of eyesight can be helped by glasses, though incipient disease may be responsible. After 60, however, most new disorders do not have a refractive origin, so that glasses are not the main form of treatment and the dangers of self-diagnosis increase.

Old people can fall into two groups in their attitude towards their eyesight. Either they fail to understand when no glasses can help them, or they accept failing eyesight as irremediable, even to the extent of not reporting it, especially to their doctor, who is not expected to be concerned with visual problems. Their relatives may adopt the same attitude. Fear of hospital deters many from following up their optician's advice to see their general practitioner. For this reason visual defects in the elderly must be searched for, rather as they are in children.

Much of the visual difficulty experienced by the elderly at home can be relieved by very simple means. The main aid is illumination. As the eye ages the pupil becomes more constricted, so that less light enters the eye. Because of this pupillary narrowing the elderly eye has a built-in gloom, which is seldom appreciated by others. About four-fifths of the deficit in light sense is attributable to this and can be restored by extra illumination.

Reading difficulties: the commonest problem

Gardeners'	11.45 am)
tion Time	3.0 News
sed repeat of Sun-	3.5 Stereo
roadcast at 2.0 pm)	Afternoon Theatre
1 wave only	The Fall of the House of
	Usher by EDGAR ALLAN POE
	dramatised for radio by
	DAVID CAMPTON
Service	with Edward Petherbridge
13; Come, O thou	as Roderick Usher
of unknown (BBC	and Tim Pigott-Smith
Salma 116; Genesis	as the Narrator
34-35; 27, v 46 to	'I reined my horse to the
4 and 10-14 (RSV);	precipitous brink of a
who formedst me	black and lurid tarn, and
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	like windows of the
ing Story	house. What was it that
sk	so unnerved a man in the
DE MAUPASSANT	contemplation of the
r Garard Green	House of Usher?
News	Doctor.....ROGER HUME
1 wave only	Madeline.....SARA PUGSLEY
	JOHN TURNER (guitar)
	Directed by BRIAN MILLER

The sight problems of old age are most commonly those of reading. Most old people, even those who are almost blind, can find their way round their familiar surroundings, although they become much more handicapped if they move, for example, to an old people's home. Their reading difficulties are with them wherever they are.

Some people can be helped by a hand or stand magnifying glass, but these are cumbersome to manage and all restrict the field of vision so that rapid reading is impossible. Telescopic lenses, whether for near or distant vision, have similar limitations but can be obtained on loan through the hospital eye service (though not through the optician or local ophthalmologist). Large-print books are available in public libraries, and books on tape or cassette can be obtained as a benefit by those who are certified as being unable to read.

The readability of print depends on both its size and contrast, black print on a white background being the easiest to read. In practice the importance of contrast is often not recognised. Government departments and other official organisations tend to forget this and print forms on buff or grey paper in coloured inks of poor density. Computerised or photocopied documents are often grey on grey.

Eye and brain: both degenerate with age

Sight depends on the eye and brain jointly. Many elderly people, particularly those with circulatory diseases, have degenerative changes in the nerve cells in the retina that primarily affect the macular area, whose health is necessary for seeing detail. At the same time similar cells in the brain deteriorate, or perhaps only the brain cells may be affected.

In the former group a confused brain is given the task of interpreting blurred images. These people are only slightly more handicapped than those whose eyes are normal but whose brains are not.

It is important to check the vision of the elderly at regular intervals because of the unpredictability of the rate at which visual loss may occur. All too often this requires elderly people to make great efforts to attend a hospital eye clinic, possibly by ambulance, where they are given a three-minute test and told that there is no change. Many default, with some justification, but need watching out for in their homes.

Victims of strokes are particularly hard hit and often have no insight into their condition. They commonly complain of their inability to read, and it may be hard to convince them, and sometimes their relatives, that they are on a false quest in trying to have something done to their eyes. The common loss of either the right or left half of the field of vision makes it difficult for them to follow a line of print. Many of these patients fail to describe their difficulty in reading. Little can be done to remedy these defects, but patients should be assured that they will not go completely blind and that it will not harm their eyes to use them.

The minority of old people who need eye surgery are often accorded a low priority on hospital waiting lists. The length of time on a waiting list is seldom related to life expectancy. For example, a 2-year-old child who has to wait two years for a non-urgent operation spends about two-seventieths of his life on the list. A person of 80 with a life expectancy of about five years will spend two-fifths of her remaining life on the same list. Very possibly she will have a worse prognosis after those two years. Old age itself might be a ground for priority if an operation is likely to transform a handicapped person into a more independent person. The general practitioner is in a position to point this out.

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Eventually this series will be collected into a book and hence no reprints will be available.

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