

Additional educational resources

Fine SL, Berger J, Maguire MG, eds. *Age-related macular degeneration*. St Louis, MO: Mosby, 1998

Gass JDM. *Stereoscopic atlas of macular diseases*. St Louis, MO: 1999

Information for patients

Macular Disease Society, P O Box 16, Denbigh LL10 5ZA—www.maculardisease.org

Solomon Y, Solomon JD. *Overcoming macular degeneration: a guide to seeing beyond the clouds*. Avon Books, 2000

factor, which not only prevents angiogenesis but also improves the health of the retinal pigment epithelium through its trophic function and thus may be of value in restoring the integrity of the blood-retinal barrier.²⁰

Other treatments being tested include a variety of antiangiogenic agents (anecortave acetate, triamcinolone acetonide), which are administered intravitreally or periocularly, along with feeder vessel photocoagulation and transpupillary thermotherapy using a newer type of laser. The results of most of these trials should be available within the next few years.

Currently, no treatment is available for patients with advanced disease and severe central vision loss. However, a major advance in semiconductor chip technology has made the manufacture of microphotodiode arrays possible. Pilot feasibility studies indicate that these minute chips can be implanted into the retina to interphase directly with the visual pathways with some prospect of neurotransmission to the brain. The Doheny Retina Institute of the University of Southern California is trying to develop a type of retinal prosthesis that would give a real hope of providing a visual stimulus to blind patients with severe retinal degeneration.^{21 22}

Conclusion

Even though no current treatment will restore vision that has already been lost, immediate referral and fast tracking of people with symptoms of exudative age related macular degeneration to specialist retinal centres will offer individual patients access to the array of treatments that can help to minimise damage to the macula. With the impending epidemic of “ageing,” age related macular degeneration is set to become a major public health problem, especially in the developed world. Continuing research in this field holds great promise for the future.

Competing interests: None declared.

- 1 United Nations The world population prospects: the 2000 revision. www.un.org/esa/population/publications/wpp2000/highlights.pdf (accessed Dec 2002).
- 2 National Statistics Office. National population projections. www.statistics.gov.uk/CCL/nugget.asp (accessed 9 Feb 2003).
- 3 World Health Organization. Fact sheet No. 144. Blindness and visual disability, Part III of VII: other leading causes worldwide. www.who.int/inf-fs/en/fact144.html (accessed Dec 2002).
- 4 Fletcher A, Donoghue M, Owen C. *Low vision services for people with age-related macular degeneration in the UK: a review of services needed and provision*. Denbigh: Macular Disease Society, 2001.
- 5 Macular Photocoagulation Study Group Risk factors for choroidal neovascularisation in the second eye of patients with juxtafoveal or subfoveal choroidal neovascularisation secondary to age-related macular degeneration. *Arch Ophthalmol* 1997;115:741-7.

- 6 Pieramici DJ, Bressler SB. Age-related macular degeneration and risk factors for the development of choroidal neovascularization in the fellow eye. *Curr Opin Ophthalmol* 1998;9:38-46.
- 7 Evans JR. Risk factors for age-related macular degeneration. *Prog Retin Eye Res* 2001;20:227-53.
- 8 Arnold JJ, Sark SH. Age related macular degeneration. *BMJ* 2000;321:741-4.
- 9 Chopdar A. *Fundus fluorescein angiography*. Oxford: Butterworth-Heinemann, 1996:4-5.
- 10 Macular Photocoagulation Study Group. Argon laser photocoagulation for maculopathy after five years: results from randomized clinical trials. *Arch Ophthalmol* 1991;109:1109-14.
- 11 Macular Photocoagulation Study Group. Persistent and recurrent neovascularization after laser photocoagulation for subfoveal choroidal neovascularization of age-related macular degeneration. *Arch Ophthalmol* 1994;112:489-99.
- 12 Moisseiev J, Alhalel A, Masuri R, Treister G. The impact of macular photocoagulation study results on the treatment of exudative age-related macular degeneration. *Arch Ophthalmol* 1995;113:185-9.
- 13 Bressler NM, Gills JP. Age related macular degeneration: new hope for a common problem comes from photodynamic therapy. *BMJ* 2000;321:1425-7.
- 14 Bressler NM, Treatment of Age-Related Macular Degeneration with Photodynamic Therapy (TAP) Study Group. Photodynamic therapy of subfoveal choroidal neovascularization in age-related macular degeneration with verteporfin. Two-year result of 2 randomized clinical trials—tap report 2. *Arch Ophthalmol* 2001;119:198-207.
- 15 Marcus DM, Sheils C, Johnson MH, McIntosh S, Leibach D, Maguire A, et al. External beam irradiation of subfoveal choroidal neovascularization complicating age-related macular degeneration. One-year result of a prospective, double masked, randomized clinical trial. *Arch Ophthalmol* 2001;119:171-80.
- 16 Hart PM, Chakravarthy U, Mackenzie G, Chisholm IH, Bird AC, Stevenson MR, et al. Visual outcomes in the subfoveal radiotherapy study: a randomized controlled trial of teletherapy for age-related macular degeneration. *Arch Ophthalmol* 2002;120:1029-38.
- 17 Age-Related Eye Disease Study Research Group. A randomized, placebo-controlled clinical trial of high dose supplementation with vitamins C and E, beta-carotene and zinc for age-related macular degeneration and vision loss: AREDS report no. 8. *Arch Ophthalmol* 2001;119:1417-36.
- 18 Evans JR, Henshaw K. Antioxidant vitamin and minerals supplements for preventing age-related macular degeneration. *Cochrane Database Syst Rev* 2000;(1):CD000253.
- 19 Taylor HR, Tikellis G, Robman LD, McCarty CA, McNeil JJ. Vitamin E supplementation and macular degeneration: randomised controlled trial. *BMJ* 2002;325:11-4.
- 20 Rasmussen H, Chu KW, Campochiaro P, Gehlbach PL, Haller JA, Handa JT, et al. Clinical protocol: an open-label, phase I, single administration, dose escalation study of ADGVPEDF.11D (ADPEDF) in neovascular age-related macular degeneration (AMD). *Hum Gene Ther* 2001;12:2029-32.
- 21 Humayun MS. Intraocular retinal prosthesis. *Trans Am Ophthalmol Soc* 2001;99:271-300.
- 22 Flinn ED. Ceramic photocell implants could restore sight. *Aerosp Am* 2002;4:18-9.

Corrections and clarifications

Socioeconomic position in childhood and adulthood and insulin resistance: cross sectional survey using data from British women's heart and health study

Tables 2 and 3 in the full version (see bmj.com) of this paper by Debbie A Lawlor and colleagues, contain the wrong regression coefficients in the final two columns (*BMJ* 2002;325:805-7). The magnitudes of the regression coefficients are about one tenth of the value that they should be, but the corrected values do not alter the conclusions of the paper. The corrected tables can be viewed at www.bmj.com/cgi/content/full/325/7368/805/DC1.

Doctors' use of electronic medical records systems in hospitals: cross sectional survey

During a recent exercise to update their material, the authors (Hallvard Lærum and colleagues) of this Information in Practice article that was published over a year ago, discovered that some of the information they had used was wrong (*BMJ* 2001;323:1344-8). The one DocuLive department in the investigation that had reported having the function “obtain results from clinical biochemical laboratory analyses” did not have it after all. Because of this, figure 2 should exclude the entry for clinical task No 10. The authors say that the error does not affect the principal findings or conclusion.