

AGE RELATED MACULAR DEGENERATION

As a Dispensing Optician, my customers come to me following their sight test to discuss their visual needs. Some have been diagnosed with Age Related Macular Degeneration (ARMD) and want more information.

This is the second part of an article I have put together to help inform about this condition. Is there any treatment for age-related macular degeneration?

For the more common dry ARMD, there is no specific treatment yet. There are, however, certain things that can be done to maximise the sight you do have and to improve your eye health. Stopping smoking and protecting the eyes from the sun's rays by wearing sunglasses are important. A healthy balanced diet rich in antioxidants may be beneficial, as may the addition of dietary supplements. Remember that in this type of ARMD the visual loss tends to be gradual, over 5-10 years or so.

For the less common wet ARMD, some treatments may halt or delay the progression of visual loss. These include treatment with anti-vascular endothelial growth factor (anti-VEGF) drugs, photodynamic therapy and laser photocoagulation.

Anti-VEGF drugs

In recent years a group of drugs called anti-VEGF drugs has been developed. Vascular Endothelial Growth Factor is a chemical that is involved in the formation of new blood vessels in the macula in people with wet ARMD. By blocking the action of this chemical, it helps to prevent the formation of the abnormal blood vessels. Anti-VEGF drugs are also called anti-angiogenic.

Anti-VEGF drugs include ranibizumab (Lucentis®), pegaptanib (Macugen®), and bevacizumab (Avastin®). The National Institute for Health and Clinical Excellence (NICE) appraised these therapies in August 2008 and gave approval to ranibizumab.

Ranibizumab (and other anti-VEGF drugs) are injected using a fine needle directly into the vitreous humour of the eye every four weeks. These drugs are an exciting new development in the treatment of wet ARMD.

Ranibizumab will improve vision in about 1 in 3 people treated. However, treatment in most people will maintain vision and prevent the condition from getting worse. About 1 person in every 10 treated, will not respond at all. Clinical (drug) trials are ongoing and involve other anti-VEGF drugs but, at present, NICE does not recommend them.

Photodynamic therapy

This is a technique that was developed in the late 1990s. A drug called verteporfin is injected into a vein in the arm. Within a few minutes it binds to proteins in the newly formed abnormal blood vessels in the macula and when a light at a special wavelength is then shone into the eye for just over a minute, the verteporfin activates and causes damage, destroying the abnormally growing blood vessels (neither damaging the nearby rods and cones, nor any normal blood vessels).

Photodynamic therapy is only suitable for some cases. It depends on exactly where the new blood vessels are growing and their extent but the success rate in treated people is high. The visual loss is prevented from getting worse - it does not restore any lost vision. Treatment usually needs to be repeated every few months.

Laser photocoagulation

This is a technique where a fine laser is 'fired' at the tiny new blood vessels, destroying them. People undergoing this treatment will develop a permanent black or grey patch affecting their vision and no sight is restored.

Laser photocoagulation is only suitable for a small number of cases because the laser may also damage the rods and cones.

Diet and dietary supplements

Certain groups of people with ARMD (both wet and dry types) can benefit from vitamin and mineral supplements. These supplements can slow down the progression of ARMD. They are thought to be most beneficial in people with either advanced ARMD or with vision loss (due to ARMD) in one eye. Various products are available to buy over-the-counter (OTC). These supplements are not licensed medicines and generally are not available on prescription. Although, Some primary care trusts (PCTs) may fund them.

A specific combination of high-dose vitamins and minerals has been tested in the AGE RELATED EYE DISEASE STUDY (AREDS) and found to be most effective. The mixture includes: vitamin C 500 mg, vitamin E 400 IU, beta-carotene (vitamin A) 15 mg (25,000 IU), zinc oxide 80 mg and cupric oxide 2 mg daily. Two products which contain all of these, in the stated quantities - Viteyes® Original and Bausch and Lomb PreserVision® Original tablets.

There is some concern that the high doses of vitamins and minerals needed may lead to side-effects in some people and so you should talk to your GP or ophthalmologist before starting these supplements.

Practical help

If your vision becomes poor, you can benefit from the following:

- Magnifying lenses, large print books, and bright lamps which may assist reading.
- Gadgets such as talking watches and kitchen aids which can help when vision is limited.
- Being registered as partially sighted or blind. Your consultant ophthalmologist can complete a 'Certificate of Visual Impairment'. You may then be entitled to certain benefits.

What else can I do?

If you smoke, try to stop.

Wear good sunglasses that protect you from harmful rays

Eat a healthy balanced diet to try to make sure you get plenty of the types of vitamins that may help in ARMD.

Stay safe with regards to driving.

Have regular sight tests as you get older. You should visit an optometrist every two years, even if there is no change in your vision. An eye test can often pick up the first signs of an eye condition before you notice any change in your vision. Your optometrist can advise you how often you need to have an eye check-up, depending on your general health, age, family history and other medical conditions. Early detection of problems often allows more effective treatment.