NHS
Royal Devon and Exeter
NHS Foundation Trust

Intravitreal Injections for Wet Age-related Macular Degeneration (AMD)

Introduction

This leaflet is aimed at patients who have been diagnosed with wet age-related macular degeneration and have been prescribed intra-vitreal injections.

What is wet age-related macular degeneration (AMD)?

The retina functions like a layer of photographic film lining the back surface of the eyeball. It contains specialised cells that are needed for sight. The area of your retina that lets you see details in the centre of your vision is called the macula.

Wet age-related macular degeneration occurs when an abnormal network of blood vessels sprout underneath the aging macula, the 'central vision' that we rely on for important visual tasks such as reading, recognising colours and details.

This abnormal network of blood vessels causes destruction to the macula by leaking blood, fluid and lipid into the macula. Left untreated, the central vision is typically lost over a period of 3 to 6 months.

Wet age-related macular degeneration is the most common cause of blindness registration in the UK.

What are the risk factors of wet AMD?

Increasing age, smoking, excessive exposure to sunlight and poor nutrition have all been identified as risk factors for the development of wet AMD.

What are the symptoms of wet AMD?

Wet AMD can progress quickly. It causes distortion and blurring of the central vision and this usually results in difficulty with detailed visual tasks such as reading, watching television, driving and recognising faces.

How is wet AMD diagnosed?

Optical Coherence Tomography (OCT), this is a laser scanning test to look at the extent of the swelling in the macula and allow us to monitor the effect of the intravitreal injection treatment at subsequent visits.

Fluorescein Angiography may be performed to diagnose wet AMD. Fluorescein Angiography provides information about the blood circulation and the arrangement of the blood vessels and pigment within your eyes, thus enabling your doctor to assess whether treatment will help you. For more information about this test ask for the leaflet 'Fluorescein Angiography'.

What treatment is available?

The National Institute for Health and Care Excellence (NICE) approved treatment for a wet AMD is a course of the intravitreal injections.

The abnormal network of blood vessels, once formed, is dependent on a signalling molecule, the Vascular Endothelial Growth Factor (VEGF), to keep growing and leaking. It has been demonstrated that by blocking VEGF, the leakage and growth of the abnormal network of blood vessels can be arrested.

The drug injected is an engineered humanized antibody against VEGF. It blocks all the effect of VEGF on the abnormal network of blood vessels, causing the abnormal network of blood vessels to stop leaking and growing.

Intravitreal injections are able to 'dry up' the macula in wet macular degeneration in over 95% of patients. Treatment aims to slow down deterioration of the central vision in the majority of patients. A small proportion of patients (20-30%) experience major improvements in their vision.

It can be difficult to accurately predict whose vision will improve with treatment on an individual patient basis, but the vision is very likely to be stabilized in the vast majority of patients. To maintain stability, you will likely need to receive regular tests and treatment from an eye specialist.

The drugs are given via an intravitreal injection, that is, it is injected into the vitreous cavity (the main cavity) of the eye using sterile technique. There are no other alternatives.

What are the side effects of intravitreal injections?

The injected eye will be uncomfortable, gritty and watery throughout the day. This is likely due to the sterile preparation and the use of iodine to prevent infection.

The white of your eye, where the injection is introduced, is likely to be bloodshot. The eye would feel slightly bruised but this is common and should go away within a week.

You may see a few 'floaters' or 'spots' in your vision. These spots are normal and should go away in a few days.

What are the risks of having intravitreal injections?

The safety profile appears to be good in the short term, in various clinical trials. The potential major risks are as follows:

1. Infection

The most serious complication related to the injection of any medicine inside the eye is infection. This can lead to potentially serious loss of sight. The risk of infection is approximately 1 in 1000. (The West England Eye Unit (WEEU) has a 1 in 2000 risk profile).

2. Retinal Detachment

There is also a very small risk of retinal detachment estimated at 0.7%

3. Loss of Vision due to mentioned risks

If infection or retinal detachment occurs, further surgery will be required and the visual outcome may not go back to how it was.

Preparation on the day of treatment

On the day of your injection do not wear eye makeup.

Contact the department beforehand if there is a clear sign of eye infection.

Contact the department beforehand if you have had any recent Myocardial Infarction (Heart attack), Stroke, or Transient Ischaemic Attack (Mini Stroke) within the last three months.

What happens on the day of treatment?

If you usually have a carer, please bring them with you. Otherwise be aware that our waiting space is very limited and if you are accompanied

by a relative or friend we may ask them to wait in a different area or to come and collect you when you are ready.

You will be asked to confirm your details such as date of birth, known allergies, and existing medications.

You will be asked to sign a consent form at your first injection only which will be valid for subsequent injections.

You can ask the practitioner if you have any queries or concerns about your condition and the procedure.

The procedure

- Your eye and the skin around your eye will be cleaned to avoid infection.
- Your face and the area around the eye will be covered with a special drape.
- A device will be used to hold your eye open.
- Your eye will be numbed with an anaesthetic drop so that there is minimum discomfort.
- The doctor or specialist nurse will then give the injection into the white part of your eye.
- Some patients say they feel a little pressure on the eye when the injection is being given.
- The treatment should take about 15 minutes.

There is usually some discomfort for a few days after an injection as mentioned in the side effects.

There are no restrictions on resuming normal activities but avoid touching the eye as much as possible for 12 hours to reduce the likelihood of acquiring an infection.

Expect to be in the hospital for up to 1 hour.

Going home

Rarely, injections in the eye can cause infection, so watch for persisting symptoms following your injection.

Increasing redness and light sensitivity which progresses to severe pain and loss of vision.

If you are experiencing this then contact the unit as soon as possible.

What are the next steps?

You will be booked in for a course of 3 monthly injections after which you will be given an appointment in the out patients department to decide if further treatment is needed.

Contact numbers

For advice ring:

Macular Service Office .....
01392 406052
Monday-Friday, between 8am and 5pm

Useful phone numbers for support

Macular Disease Society (MDS)
0845 241 2041
Website: www.maculardisease.org

Royal National Institute for the Blind (RNIB)
0845 702 3153
Website: www.maculardisease.org