Ophthalmology Department

Macular Swelling due to Retinal Vein Occlusion

This leaflet has been provided for you because you have had a blocked blood vessel at the back of the eye. This is called a retinal vein occlusion (RVO). Your vision is blurred due to this and also due to swelling of the central part of the retina (the macula), this part gives you high quality vision. The medical term for this is macular oedema and it can cause blurred or distorted vision and can lead to a loss in vision. It can be difficult to treat and until recently there was **no treatment** available for most types of RVO. Due to new research we now have some options available, however every treatment has risks associated with it.

This leaflet is designed to give you an understanding of the pros and cons of each treatment so you have some background information. Your eye doctor will help you to know about your condition, answer any questions and advise you on any specific risk factors personal to you that may determine a particular treatment is more suitable than another.

There are two classes of drug treatment at present, anti-angiogenic drugs called anti-vascular endothelial growth factor (anti-VEGF) and steroids intra-ocular implants.

What are the two types of treatment?

1. Anti-VEGF drugs are administered via an injection to the eye. They work by stopping the leakage of blood vessels on the back of the eye to prevent damage to the retinal light receptors in the macula and so prevent loss of vision.

What vision benefit can I expect from anti-VEGF?

The approximate percentage of patients who gained significant improvement in vision is around 50% at 12 months.

There are two anti-VEGF drugs available on the NHS:

• **Lucentis – Ranibizumab and Eylea - aflibercept,** are currently licensed for use on the NHS for swelling of the macula due to retina vein occlusion (RVO). It is delivered with an intra-vitreal injection to the eye (into the gel inside the eye)**.** The risks specific to Lucentis include, a very small increase in risk of strokes and heart attacks, due to thrombosis (about 0.4%). It is important to remember that the mean age group that gets retinal vein occlusions and the associated risk factors of high blood pressure, raised cholesterol and blood glucose, is the same group that is more prone to developing strokes and heart attacks and therefore if this unfortunate event occurs after an injection it is very difficult to say that it wouldn't have occurred without the injection. In the UK, 1 in 4000 patients develop sight- threatening infection in the eye due to intra-vitreal injections of anti-VEGF.

2. Ozurdex – Biodegradable Dexamethasone Implant.

It is also an intra-vitreal injection as anti-VEGF however, the needle is slightly thicker. It provides slow release of the active drug - a steroid that lasts for up to 4 to 6 months. The treatment is administered every 4-6 months on average for as long as the macular swelling keeps developing. You will also be required to attend the eye clinic for monitoring in between injections.
Its main side effect is raised intraocular pressure in about 30% of patients that might require treatment with hypotensive eye drops to control the eye pressure or rarely glaucoma surgery on 0.5% of patients. Uncontrolled eye pressure can lead to glaucoma and deterioration of vision over time. Your eye pressure will be monitored for this reason. A patient who has established glaucoma may not be suitable for this treatment as it may make the control of the intraocular pressure difficult.

Another side effect is the progression of cataract and risks associated with the injection itself such as 1:1000 risk of sight threatening infection in the eye and retinal detachment.

What can I expect from Ozurdex?

The percentage of patients who gain vision from Ozurdex is about 30%.

The injection

Before the injection, both you and your eye doctor will need to sign a consent form. The procedure takes about 7 minutes but the injection itself is over in a few seconds. It is given in a clean, comfortable purpose built room while lying on a couch. The eyelids and surface of the eye are cleaned first to reduce the risk of infection.

The eye is first made numb with eye drops. During the injection, you will feel a prickle or a pressure type sensation similar to taking blood from your arm.

Risks that are common to all injections treatment options

1. Conjunctival bleeding on the surface of the eye - often painless, and resolves with no treatment within 1-2 weeks.
2. Corneal abrasion that gives you pain shortly after the injection for about 24-48 hours until it heals completely.
3. Infection inside the eye that might cause loss of vision (endophthalmitis) – very rare.
4. Bleeding into the gel of the eye.
5. Lens touch causing cataract (clouding of the lens within the eye).
6. Raised intraocular pressure leading to glaucoma (more so in the Ozurdex group).
7. Retinal detachment.
8. Hypotony (reduced pressure in the eye).

Laser Treatment

For certain types of retinal vein occlusion - the Branch Retinal Vein Occlusion (BRVO), occasionally and in very specific circumstances, macular laser treatment might be an option. Risks due to laser include: central black spot due to laser scars, failure to resolve the swelling, loss of sight from accidental damage to the macula.

How often will you require treatment with anti-VEGF?

We advise that you should prepare yourself to attend the eye clinic every 4-6 weeks for approximately 2 years. The first three visits will require you to have an injection, then you will be offered an injection if there is evidence that the leakage is still active. In one year, the average patient may have up to 8-9 injections and in the second year, approximately 6-7 injections. This is only an indication as each eye is unique.

How often will you require treatment with Ozurdex?

On average 2 implants per year are required and an average of 7 visits per year to the clinic are required to include the essential monitoring of your eye in between the treatments.

The RVO Clinic Visit

In order to determine suitability of treatment and effect of treatment, certain tests need to be undertaken on arrival to the clinic.

1. A test of visual acuity using a letter chart.
2. An OCT scan (Optical Coherence Tomography): This is a non-invasive test that takes a snapshot of the macula to determine the amount of leakage present.
4. An eye pressure check using tonometer - a smooth plastic cone that touches the surface of the eye after administering eye drops to numb the eye.

Your appointment time in the clinic will vary as on some days you will require more tests/procedures than other days. In order to provide the most suitable treatment as a one stop service, we request that you bear with us.

In case of emergency if you have concerns after injections, have any comments about this leaflet or the service you have received please contact:

Sister Ophthalmology Department
Acre Mills Outpatients
Telephone (01484) 343235
or
Calderdale Royal Hospital
Telephone (01422) 222414

If you would like this information in another format or language contact the above.

Potřebujete-li tyto informace v jiném formátu nebo jazyce, obraťte se prosím na výše uvedené oddělení

Jeżeli są Państwo zainteresowani otrzymaniem tych informacji w innym formacie lub wersji językowej, prosimy skontaktować się z nami, korzystając z ww. danych kontaktowych

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ਤਾਂ ਕਿਰਪਾ ਕਰਕੇ ਉਪਰੋਕਤ ਵਿਭਾਗ ਵਿੱਚ ਸਾਡੇ ਨਾਲ ਸੰਪਰਕ ਕਰੋ।

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