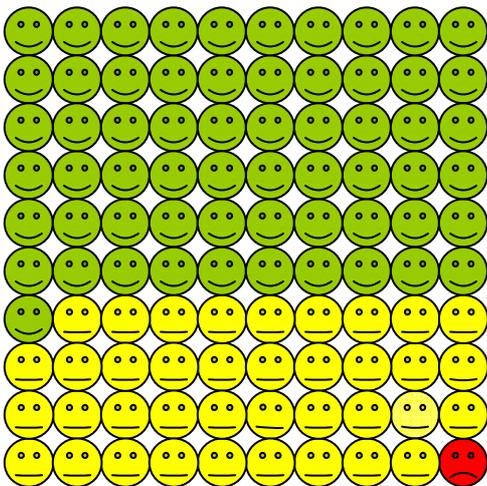


BRANCH RETINAL VEIN OCCLUSION

Treatment of Macular Oedema causing loss of vision in Branch Retinal Vein Occlusion (BRVO)

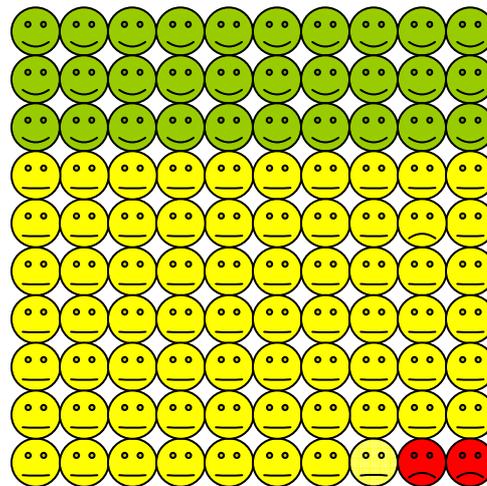
Ozurdex, Lucentis and Laser

BRVO treated with Lucentis at 6 months



The visual gains shown above were sustained throughout 6 months and up to 12 months

BRVO treated with Ozurdex at 6 months



The visual gains shown above were seen 2 months after Ozurdex, but then gradually declined



Percentage of patients who gained 3 lines of vision



Percentage of patients who had no change in their vision



Percentage of patients who lost 3 lines of vision

What is Branch Retinal Vein Occlusion?

Branch Retinal Vein Occlusion (BRVO) is a blockage of one of the veins in the retina at the back of the eye. It can cause macular oedema, which is swelling of the central part of the retina with loss of vision. Macular oedema is typically associated with loss of vision, particularly loss of sharpness of vision, such as the ability of reading or recognising faces and objects.

Can BRVO cause additional problems during the course of the disease?

Branch Retinal Vein Occlusion may also cause loss of blood supply to the retina and reactive growth of new abnormal blood vessels at the back of

the eye. This is a complication called **Proliferative Retinopathy** that puts the patient at risk of bleeding into the affected eye and further loss of vision.

Rarely, BRVO may cause growth of abnormal blood vessels at the front of the eye and a condition called rubeotic glaucoma. This is an uncommon complication of BRVO causing a painful and potentially blind eye.

Proliferative Retinopathy and Rubeotic Glaucoma are complications of BRVO and central retinal vein occlusions (CRVO). As they are more frequently seen with CRVO, they are explained in more detail in the section on “Treatment of Central Retinal Vein Occlusions (CRVO)” under the “patients’ info” link on Mr Pagliarini’s web site.

What causes BRVO?

A retinal vein occlusion usually occurs because of a hardening of the retinal arteries, which causes a clot. Known risk factors are age, smoking, raised cholesterol and lipids (fat) in the blood, raised blood pressure and in younger patients, inflammation or clotting disorders.

What happens without treatment?

It’s important to remember that each case of retinal vein occlusion is unique and that macular oedema is the main cause of loss of vision in BRVO.

In 20 to 40% of affected eyes the vision may get better without treatment. For this reason a few weeks of observation period may be appropriate to identify patients that recover spontaneously and may not need any treatment.

About 20% of patients with BRVO do not recover vision and often get worse if left untreated for several months. There is some evidence that, in patients who have not improved spontaneously, delaying treatment for months may reduce the chances of visual recovery once treatment is started.

How is BRVO treated?

The current main options are about a **choice between Lucentis, Ozurdex and macular laser grid.**

Please note that Laser treatment is the standard first line treatment in the NHS.

Lucentis and Ozurdex in general are superior to macular laser grid.

There is an impression that Lucentis may be superior to Ozurdex when comparing results from the pivotal clinical trials for each drug. However, these studies had different design and did not truly compare the two treatments head-to-head. Therefore it is not possible to conclusively know if Lucentis is superior to Ozurdex or viceversa.

Head-to-head comparative studies of Lucentis versus Ozurdex are under way. One of them is being conducted at the Macular Unit at the Hospital of St Cross, Rugby, with Mr Pagliarini being the Principal Investigator.

Is there a restriction in using Lucentis in the NHS?

Lucentis is licensed for treating macular oedema in retinal vein occlusions. However, it has yet to be approved by NICE for its use in the NHS, although it is currently being evaluated. Lucentis can be used in private practice or as part of an ethically approved clinical research study.

Please note that the National Institute of Clinical Excellence (NICE) recommends Ozurdex for BRVO only in two circumstances:

1. If laser treatment has failed, or
2. If laser treatment is not possible due to confluent haemorrhages at the macula

Laser treatment is the standard first line treatment in the NHS.

Laser for macular oedema is typically applied as a grid to the affected area **no earlier than 3 months** from the diagnosis and when the BRVO has caused macular oedema with loss of vision to 6/12 or worse (sub-driving standard vision).

The macular laser treatment is referred to as **grid laser** or **focal laser**.

Other uses of laser in BRVO

Laser treatment can be used to treat **Proliferative Retinopathy**. This is a complication of BRVO that occurs when abnormal and frail blood vessels grow on the surface of the retina. This is the body's attempt to repair lost blood supply that is a result of BRVO in some parts of the retina. Unfortunately these blood vessels can bleed and cause loss of vision.

Proliferative Retinopathy takes some time to develop after the onset of BRVO. It usually occurs in the first 12 months and rarely years later.

If proliferative retinopathy is detected during follow-up, scattered retinal laser photocoagulation is applied to the affected areas to reduce the risk of bleeding.

If left untreated, these abnormal new vessels may bleed inside the eyeball in 24% of patients. However, laser treatment somewhat reduces this risk so that only 16% of patients may experience a bleed inside the eye.

This type of laser treatment is referred to as **sector Panretinal Photocoagulation (sector PRP)** or **Scattered Retinal Photocoagulation**.

For more information on Ozurdex, Lucentis and other similar drugs, side effects of drugs and intravitreal procedures, please read the section on "Treatment of Central Retinal Vein Occlusions (CRVO)" under the "patients' info" link on Mr Pagliarini's web site.

Disclaimer

This document is used by Mr Pagliarini to advise his patients in his private rooms. It is available to the public through Mr Pagliarini's personal web site. Mr Pagliarini takes no responsibility for the use of this document outside the scope of advising patients in his own private rooms.

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