



Bern, 11. Mai 2020

INFORMATION ABOUT CENTRAL RETINAL BULGES (MACULA EDEMA) AND THEIR POSSIBLE TREATMENT (INJECTION OF DRUGS INTO THE VITREOUS BODY)

Dear patient,

A bulge at the center of the retina, the area of the retina with the sharpest vision (macula), was identified as the cause for the degradation of your vision.

Explanation of your disease

The central retinal bulge in your eye has developed because of:

- diabetes mellitus
- age-related degeneration of the macula
- vascular obliteration
- cataract operation
- inflammation

Persistent bulging of the central retinal area causes progressively worse impairments to your vision and can lead to the loss of your reading ability. Subsequently, it will become more and more difficult to watch television, to drive a car, to do needlework, to recognize faces etc. However, the visual field will not be affected and there is no danger of going blind.

The aim of our intended therapy is to prevent a further loss of vision.



Our options for the treatment of your disease

The injection of a drug into the vitreous body leads to a temporary sealing of the leaky vessels which are responsible for the macular edema. Thereby the swelling of the centre of the retina will decrease and your visual faculty can improve. At the same time we will be able to observe how your retina responds to the treatment and in what way you actually benefit from the therapy. We have the following drugs against your disease at our disposal:

- Lucentis®
- Beovu®
- Eylea®
- Ozurdex®
- Other

The first three of the listed drugs are supposed to reduce the growth of undesirable vessels at the center of the retina, which occurs because of a malfunctioning retinal alimentation. These newly formed vessels emit liquids between the retinal sensory cells (edema), adversely affecting the visual field. These new drugs also help reduce the risk of hemorrhages at the central retinal area. Lucentis®, Eylea® and Macugen® were primarily developed for the treatment of the eye; Avastin® was originally an anti-tumor drug. Recent research has shown that Avastin® also has beneficial effects on the formation of new retinal vessels (but possibly not as effectively as Lucentis®), and that its application implies a slightly raised risk for side effects, particularly for vascular occlusion (apoplexy). However, Avastin® has not yet received official approval in Switzerland ("off-label therapy").



Since Avastin® has been commercially available for a long time there is a lot of experience with its intravitreal application. Furthermore it is much less expensive than Lucentis®.

Eylea® is supposed to last slightly longer while having the same therapeutic effect as Lucentis®. However, the required number of injections for a 2-year treatment plan will be about the same. The side effect profile of Eylea® is similar to that of Lucentis® and the treatment cost is the same.

Ozurdex and Triamcinolon are long lasting corticosteroid preparations. They are used to treat the inflamed tissue as the leading cause and consequence of the swelling of the retina. The edema may decrease because of their application.

About the injection of drugs into the vitreous body

The injection is an ambulant operation and only takes a few minutes. Before the surgical intervention the eye is anesthetized with eye drops, the skin is disinfected, and the eye is covered with sterile gauze. Then the drug is injected into the vitreous body using a very fine needle. The injection only has minimal effect on your vision, but you may temporarily see dots or shades.

The first examination is held only 2 to 4 weeks after the injection. We will monitor the success of the therapy and discuss whether it is necessary to repeat the treatment. If you feel any pain or discover unusual changes in your vision or your eye before the first appointment, please contact us immediately.

Possible problems during the treatment of the macular edema

It is impossible to predict the success of the therapy. In most cases it is possible to reduce the macular edema, but the



disease that caused it in the first place is incurable. Thus, we are usually able to stabilize your visual faculty, but cannot restore it to the state it was in before the disease manifested itself.

All the aforementioned drugs are only effective for a limited amount of time, usually for about 3 to 4 months. Therefore, it is necessary to repeat the treatment if you react positively to the therapy. After about 3 to 4 injections into the vitreous body, a temporary stabilization is usually achieved, and the interval between injections can then be extended.

Complications & side effects of the treatment of the macular edema

You may develop a conjunctival bleeding in the area where the injection was made. It can immediately be recognized as an intense redness at the point of the injection. It should vanish after 10 to 14 days. In rare cases there may be a bleeding into the vitreous body, which can disturb your vision. This bleeding normally disappears after about 4 to 6 weeks. The drug itself, especially the Triamcinolon, can cause blurred vision until it is completely dissolved. Some patients may perceive the small Ozurdex implant (rod shaped).

It is necessary to monitor the intraocular pressure because it may rise temporarily after the injection (especially after the application of corticosteroids). Furthermore, it is possible that the progression of an existing cataract (opacity of the lens) could be accelerated. If a sudden movement of your head occurs during the injection, the lens or the retina may be damaged, the possible consequences being a cataract, a shifted artificial lens or a retinal detachment.

The most severe of these potential complications, though it only occurs very rarely, is an inflammation inside of the eye (Endophtalmite), which can lead, in the worst cases, to the



BERNER AUGENKLINIK

AM LINDENHOFSPITAL

loss of your eye (the frequency of this complication is about 1 incident per 3000 injections). In such a case, immediate surgery combined with the application of antibiotics is required. The typical symptoms of an Endophthalmitis are acute pain in the eye as well as redness and degradation of vision 2 to 6 days after the injection. If you suffer from these symptoms please contact your ophthalmologist or our clinic immediately.



About the therapy of your macular edema

Without treatment, it is very likely that the acuity of your vision will degrade to the point where it is no longer possible to read, to recognize faces and to watch television. The likelihood of a continuing degradation of the visual faculty, to the point of a complete loss of vision, is just as high, while the risks of an injection are small.

After the preexaminations of your eye we recommend the following therapy:

- right eye left eye
- injection of Lucentis® into the vitreous body
- injection of Beovu® into the vitreous body
- injection of Eylea® into the vitreous body
- injection of Ozurdex® into the vitreous body
- other:

After the initial treatment a new optical coherence tomography (OCT, examination of the retina) is required to verify the therapeutical strategy and to decide if further injections are needed.

PLEASE TAKE NOTE OF THE FOLLOWING REGARDING THE FIRST HOURS AFTER YOUR TREATMENT:

- During the first hours after treatment your eye will remain insensitive to touch. Please be careful when touching the eye, e.g. with a handkerchief.
- Your eye might hurt a little bit for the first the day after treatment. The application of a cold cloth can alleviate the pain.
- Please contact us if your eye remains red and sore the day after treatment.



Patient ...

Date of birth 06.11.1940

INFORMED CONSENT

The undersigned patient hereby confirms that she/he has been thoroughly and completely informed about her/his disease, the planned therapy, its possible complications/side effects/risks and its expected benefits.

Furthermore he/she confirms to have read and understood this educational dossier. All her/his questions about the therapy have been answered clearly and completely. She/he has been informed about the temporary nature of the surgical intervention and that it has to be repeated 3 to 4 times to achieve stabilization of her/his vision, provided that the first treatment shows a successful response.

I hereby consent to the treatment of my

right eye

left eye

With 3 to 4 applications of the following medicine:

injection of Lucentis® into the vitreous body

injection of Beovu® into the vitreous body

injection of Eylea® into the vitreous body

injection of Ozurdex® into the vitreous body

other:

Date

Physician's signature

11.05.2020

Date

Patient's signature

11.05.2020