



Intravitreal Ranibizumab or Triamcinolone Acetonide in Combination with Laser Photocoagulation for Diabetic Macular Edema

*A multi-center study being conducted
by the Diabetic Retinopathy Clinical
Research Network*

General Information for Patients Considering Becoming a Subject in This Study

Your eye doctor is taking part in a government study being conducted by the Diabetic Retinopathy Clinical Research Network. This network includes over 100 eye centers in the United States that specialize in the care of patients with diabetic retinopathy.

The study is being funded by the National Eye Institute, which is a part of the National Institutes of Health, a branch of the U.S. Department of Health and Human Services that funds medical research. Additional funding is being provided by Genentech, Inc., the company that makes one of the drugs being studied.

This brochure briefly describes the study and what is involved if you take part. If you think you might be interested in taking part in the study, you will be given a document called an Informed Consent Form, which will explain the study in more detail. The study center staff will answer any questions you have. You will be given as much time as you need to decide if you want to take part in the study.

This brochure will first tell you about diabetic macular edema and the treatments that are part of the study. Then it will explain what is involved if you want to be part of the study.

What is Diabetic Macular Edema (DME)?

Macular edema is the term used for swelling in the small central part of the retina used for sharp straight-ahead vision. The retina is a thin layer of tissue that lines the back of your eye. It is nourished by blood vessels that become affected by diabetes. These blood vessels weaken and some of them develop balloon-like swellings called microaneurysms. The walls of the blood vessels and the microaneurysms become leaky.

Excess fluid and lipids (fatty materials) leak from the blood into the retina, causing it to become thickened or swollen. This swelling of the central part of the retina leads to decreased vision.

How is macular edema usually treated?

Laser treatment is the only treatment that has been proven to be beneficial for diabetic macular edema. Laser treatment has been shown to reduce the chance that more vision will be lost by about 50%. Vision that has already been decreased by macular edema may improve somewhat but usually does not return to normal.

What is the new treatment being evaluated in this study?

There are two drugs that will be used in the study. Over the last several years, some patients with diabetic macular edema have been treated with an injection into the eye of a corticosteroid (“steroid”) drug. This drug is used to reduce swelling in many medical conditions. The steroid that is most commonly injected into the eye is triamcinolone acetonide (“triamcinolone”). The preparation being used in the study is specially made for injection into the eye and is approved by the FDA for use in other human studies.

More recently, injection into the eye of drugs that block or decrease a substance called Vascular Endothelial Growth Factor (“anti-VEGF drugs”) has been tried to treat DME. VEGF plays a role in the development of diabetic macular edema. The anti-VEGF drug that is being used in this study is called ranibizumab. Injections into the eye of ranibizumab have been approved by the FDA for treating a condition called age-related macular degeneration but not for diabetic macular

edema. The drug has not been extensively studied for treatment of diabetic macular edema.

With both triamcinolone and ranibizumab injections into the eye, macular swelling has been reported to decrease for short periods of time. To try to prolong the effect of the injection and to reduce the need for repeat injections, laser treatment is sometimes given in combination with the injection.

At the present time, we don't know if intravitreal steroid or anti-VEGF injections, with or without laser treatment, are better than just laser by itself. It is possible that one or both of the types of injections, with or without laser treatment, will improve vision more often than will laser without injections. However, we do not know whether the benefits of the injections will outweigh the risks.

What is involved with the injection?

Before the injection is given, the surface of the eye is cleaned to prevent infection. Then, numbing medicine is administered to numb the eye and then the injection is given. You will feel a slight pressure but it is usually not very painful because the needle used is about as thick as a single hair. After the injection, you may have slight discomfort for a few days.

What are the possible side effects of the injection?

Possible side effects due to the injection itself include: (1) an increase in eye pressure, (2) the development of an infection or inflammation in the eye, (3) separation of the retina from the back of the eye (retinal detachment), and (4) bleeding

in the eye. These can be serious but fortunately they are very uncommon.

Possible side effects due to both study drugs include: (1) an increase in eye pressure, (2) haziness in the lens of the eye, called cataract, and (3) an allergic reaction.

There may be an increased risk of high blood pressure, heart attack, or stroke caused by ranibizumab. These side effects occur when similar drugs are given in large doses into the vein. The dose being given in the eye is much smaller so we think that side effects to the body will be very rare, but we can't be sure.

What treatment will I receive if I take part in the study?

If you take part in the study, your treatment will be one of the following: (1) sham injection plus laser treatment, (2) injection of intravitreal ranibizumab plus laser treatment, (3) injection of intravitreal ranibizumab plus deferred (or delayed) laser treatment, or (4) injection of intravitreal triamcinolone plus laser treatment. "Sham" means that a real injection is not given. You will not know whether you are receiving a "sham" injection or an injection of one of the study drugs.

How the treatment is selected is described in more detail in the Informed Consent Form.

How long will the study last?

The study will last three years. During the first year, follow-up visits will be every 4 weeks. There is also a visit during the first week of the study. During years 2 and 3, follow-up visits will be every 4 weeks as long as injections of the study drug are still being received.

Once injections are no longer given, follow-up visits will be every 4 months.

What costs will be my responsibility?

Charges for the treatments and office visits that are part of your regular eye care and that would occur whether or not you are in the study will be your or your insurance company's responsibility, just as they would be if you were not in the study. This includes problems that might develop related to the treatments. If you do not have insurance or your insurance does not cover all of the procedures, the study may be able to pay for these.

Will I be reimbursed for travel expenses?

If you take part in the study, you will be provided \$25 for each required visit. This payment is being made to cover any costs you have related to the study visits (such as travel expenses, parking, babysitter, etc.) If you do not complete all of the visits or discontinue the study before it ends, you will be paid for the visits that you did complete.

What do I need to do to participate in the study?

As mentioned before you will be given an Informed Consent Form to read. This document will provide much greater detail about the study. If you would like to consider being in the study, we will first ask you to sign the form so that testing can be done to determine if you are eligible for the study. If you are eligible, we will again discuss the study and answer any questions you may have before you decide whether or not to enter the study. If you decide to be in the study, you will sign the Informed Consent Form a second time.