INTRODUCTION:

Branch Retinal Vein Occlusion (BRVO) involves the obstruction of a major venous blood vessel which prevents adequate drainage of blood from the eye. As a result, blood and fluid collect on the retina particularly at the reading center, thus leading to central visual loss. Prolonged blockage of the venous blood vessel may be associated with insufficient blood flow to certain areas resulting in the occurrence of abnormal vascular growths. These vascular growths can bleed into the vitreous cavity causing marked visual loss. BRVO may be a totally independent condition. However, the following conditions have been found to have an association with BRVO: hypertension (high blood pressure), circulatory abnormalities, and certain patients with diabetes.

TREATMENT:

A. Focal Laser-After macular edema (collection of fluid at the reading center) develops due to BRVO, it may spontaneously absorb when collaterals (alternate drainage vessels) develop. The Branch Retinal Vein Occlusion Study (BRVOS) definitively established the benefit of laser treatment for those eyes with visual acuity of 20/40 or worse, associated with BRVO. Treated eyes had an average visual acuity of 20/40 while untreated eyes had an average visual acuity of 20/70. 65% of the treated eyes gained 2 or more lines from baseline vs only 37% of the untreated eyes in 2 consecutive visits.

Focal laser is performed in a grid-like pattern around the reading center. The laser light is focused on the retina by way of a temporary contact lens.

I. **What treatment can do**: Focal laser can increase the **chance** of improvement or stabilization of vision. If visual improvement occurs, it takes place gradually.

II. **What treatment cannot do**: Focal laser does not guarantee improvement or stabilization of vision in every case. Some eyes will continue to deteriorate in spite of treatment.
III. Risks and Complications

a. Common:

1. Gray spots around the center in a grid pattern (usually temporary).
2. Temporary glare and sensitivity to light
3. Minor irritation

b. Uncommon:

1. Hemorrhage
2. Retinal hole(s) formation
3. Inflammatory reaction
4. Visual deterioration (rare)

c. Other potential risks/complications not listed may be discussed with you by the doctor.

IV. Alternatives: Observation only. No other surgical or medical therapy is available.

V. Post-Operative Course: Usually no restriction or medication is necessary. A follow-up appointment is given. If retrobulbar injection is used, the eye is patched with ointment for at least 6-12 hours.

B. Scattered Laser Treatment: When abnormal vascular growth develops, severe bleeding can lead to marked visual loss. Scattered laser (SL) treatment has been found to be beneficial. A large number of laser lesions are delivered through a temporary contact lens on multiple areas of the retina. The treatment potentially arrests the progress of the vascular growth, thus indirectly leads to visual improvement of stabilization. The treatment is usually much less extensive than panretinal photocoagulation in diabetic retinopathy.
PROCEDURE NOTE

PATIENT: ______________________ SS# ___________________ DATE: __________

SURGEON: DR. ERIC MANN

PROCEDURE: PRP ____________________

INDICATIONS:

VA: OD ____________________ OS ____________________

Pre-op       Post-op

P ____________ _____________

R ____________ _____________

INFORMED CONSENT:
All the risks, benefits, alternatives and intent of laser treatment with anesthesia were presented to
the patient in an extensive discussion and in written form(s) attached. The patient understood that
laser treatment is performed not to improve vision, but to hopefully stabilize vision and prevent
further visual loss. The patient stated that he/she had a good understanding of his/her clinical
situation, including the specific ocular and anesthetic risks (loss of vision, need for further
surgery, and rarely, loss of globe) and consented to laser treatment.

TREATMENT: □ Under topical anesthesia

□ Under retrobulbar anesthesia: with the patient supine and fixating
straight ahead, 3 cc of 2% lidocaine were injected into the retrobulbar space, using a #25 guage
needle and a 10 cc syringe. Adequate anesthesia and akinesia were obtained. Following
treatment, the eye was patched for 24 hours.

Using the argon green laser, grade 2 intensity burns were applied one spot width apart, remaining
one disc diameter from the disc and two disc diameters from the foveola to the retinal periphery
Laser parameters and pattern (avoiding retina vessels) are below. laser treatment was performed
without complication. Post-operative photographs were requested. The patient tolerated the
procedure well and left the laser suite in good condition.

PARAMETERS: 0.1-0.2sec, 500 micron(equivalent), _______mW & total spots ________.

POST-OPERATIVE CARE & MANAGEMENT: Pred Forte q.i.d. & Hyoscine b.i.d. for
four days were prescribed. The patient was instructed to return in follow-up
____________________ or immediately upon any decreased vision, pain, side effects of the
medication or symptoms of RD or RB (which were reviewed). Specific post-operative
instructions included HOB elevated and restricted activities with no physical exertion. The need
for diabetic control and the results of the DCCT were reviewed.

________________________________________
Physician Signature
INSTRUCTIONS FOLLOWING LASER/CRYOTHERAPY TREATMENT

1. You may resume all of your normal activities immediately except for heavy lifting, exercise or physical exertion which you may resume in 3 to 4 weeks.

2. You may have discomfort or a headache following laser/cryotherapy treatment. Please take Tylenol but NO aspirin, Ibuprofen (Advil), indomethacin (Indocin) or other NSAIDS for pain unless your medical doctor recommends you take an aspirin a day for your heart or to “thin” your blood.

3. Due to intense brightness of the laser beam, there is a light-induced “dazzling” or “flashbulb” effect, and consequently your vision may be slightly decreased after the laser treatment. It may require a few hours to recover from this glare effect.

4. Please take pain pills as instructed and call immediately if you have persistent pain or sudden, new onset decreased vision at office phone number listed below or 866-856-7882 (after hours).

5. If you received retrobulbar anesthesia, keep the treated eye patched for 24 hours.

6. If you received eye drop prescriptions, please follow directions on the bottle.

317 Salem Place Ste. 150 533 Couch Ave., Ste 255
Fairview Hgts., IL 62208 Kirkwood, MO 63122
Phone: (618) 632-8100 Phone: (314) 835-9400
Fax: (618) 632-8101 Fax: (314) 835-9401
RECEIPT OF POST-OP INSTRUCTIONS

I __________________________ have been given postoperative instruction information. I have had the opportunity to read, understand and ask questions regarding my planned surgical procedure(s). Dr. Mann has explained this procedure to me in depth. I have been informed in regard to the potential benefits, complications, risk and alternatives of the procedure. Sufficient time was allowed for me to ask questions and these questions were answered to my satisfaction.

____________________________      _____________
Patient signature                Date

____________________________      _____________
Witness signature                Date
PERIBULBAR & RETROBULBAR ANESTHESIA

Absence of pain (anesthesia) and immobilization of the eye (akinesia) are often necessary to allow effective laser and cryotherapy treatment or intraocular surgery. Both anesthesia and akinesia can be obtained to a variable degree by injection of anesthetic (Lidocaine and/or Marcaine) around and behind the eyeball prior to treatment or surgery.

The following are common effects of the anesthetic injection but are usually temporary:

1. Blurring of vision
2. Numbness and swelling around the eye
3. Ptosis (drooping of the eyelid)
4. Diplopia (double vision)

The following are uncommon complications of the anesthetic injection:

1. Retrobulbar or periorbital hemorrhage (bleeding behind or around the eyeball)
2. Globe perforation (puncture of the eyeball by the needle used for anesthetic injection)
3. Optic nerve injury or vascular damage (central retinal artery or vein occlusion)
4. Allergic reaction to the anesthetic
5. Seizure
6. Cardiorespiratory arrest (death)
7. Bilateral akinesia

These uncommon complications may result in permanent loss of vision, need for further surgery or treatment, or loss of the globe. Other less common complications may be discussed as well.

Post treatment care may include applying ointment to the eye and wearing a patch for 24 hours.
INFORMED CONSENT

I, _____________________________ have been given the brochure(s) on central retinal vein occlusion / branch retinal vein occlusion, peribulbar & retrobulbar anesthesia.

I have had the opportunity to read, understand and ask questions regarding this procedure(s). Dr. Mann has explained this procedure to me in depth. I have been informed in regard to the potential benefits, complications, risks and alternatives of the procedure. Sufficient time was allowed for me to ask questions and these questions were answered to my satisfaction.

________________________________                     ___________
Patient signature           date

________________________________                     ___________
Witness signature                   time
CONSENT SPECIAL/INFORMED TO
SURGERY OR OTHER PROCEDURE

Name: ___________________________________________                Date: _______________
Medical record number /SS#______________________________

1. I hereby authorize Dr. Mann and / or such assistants, associates, or other health care
providers that may be selected by him, to perform the following procedure(s)
Panretinal Photocoagulation for vein occlusion__________________eye

2. Dr. Mann has discussed with me the procedure(s) listed above and the items of
information that are briefly summarized below:
   a. The nature and purpose of the proposed procedure(s): Panretinal
      photocoagulation treatment potentially arrests the progress of the vascular
growth, thus indirectly leads to visual improvement or stabilization.
   b. The risks and possible consequences of the proposed procedure(s), including the
      risk that treatment may not accomplish the desired objective(s) and including, but
      not limited to: Glare and light sensitivity, ocular irritation, decreased peripheral
      vision with narrowed visual field, decreased accommodation, decreased dark
      adaptation, choroidal neovascularization, retinal breaks or detachment,
      hemorrhage, inflammation, acute intraocular pressure rise, corneal abrasion or
      laser burns, cataract, loss of vision, or need for further surgery.
   c. All reasonable alternative treatment, including risks, probable effectiveness of
      each and consequences if this proposed treatment is not received:
      Alternative treatment.: panretinal cryotherapy

3. I am aware that, in addition to the risk specifically described in Item 2 above, there are
other risks, such as severe loss of blood, infection, cardiopulmonary arrest, respiratory
difficulties, injury to proximate/adjacent blood vessels, nerves, organs or structures,
unanticipated allergic reaction to substances, pressure/position related injuries and other
risks related to the performance of any surgical procedure.

4. I acknowledge that no guarantees have been made to me as to the results of the
procedure(s) and am also aware that complications and risks may occur despite
precautions.

5. I consent to the performance of unforeseen operation(s) and procedure(s) in addition to or
different from those now contemplated and describe herein that the named doctor and his
associates or assistants may deem necessary or advisable during the course of the
presently authorized procedure(s).

6. I consent to the administration of such anesthetics as may be considered appropriate by
the physician responsible for anesthesia administration or such assistants or associates as
may be selected by him. I understand that this procedure is to be performed using
retrobulbar/topical anesthesia. I understand that all types of anesthesia involve some
risk. I further understand that if a regional, spinal or epidural anesthesia is planned, it
may be necessary to also administer a general anesthetic. I understand that the risk of a
general, spinal, epidural or regional anesthesia include, but are not limited to, mouth
and/or throat pain or injury, cardiopulmonary arrest, cardiac arrhythmias, heart attack,
respiratory difficulties, stroke, brain damage, headache, backache and other sensory,
nerve, focal and systemic injuries.
7. I also consent to the administration of blood or blood components, drugs, medicines and other substances considered advisable by the physician(s) responsible for this procedure and the use of x-rays or other diagnostic testing, procedures and devices, which the above-named physician or his associates, consultants or assistants may consider useful.

8. I hereby authorize The Retina Group Ltd. Dr. Eric Mann or staff to preserve for scientific or teaching purposes or to otherwise dispose of any tissues, parts, organs, or implants removed during this procedure.

9. For teaching or educational purposes, I consent to the admittance of students, staff or other observers to the operating and procedure rooms, and to the taking of any videos or photographs deemed appropriate or necessary by the physician in the course of the procedure(s). I also consent to the taking of photographs or videos for the purpose of documenting the condition or procedure in the medical record. I understand that if data, photographs, videos or other information are used for teaching/educational purposes or for scientific publication, that my (the patient’s) identity will remain confidential unless otherwise authorized by the undersigned.

10. I certify that I have read or have had the above information read to me and that I understand the above consent to operation or diagnostic procedure, that the explanations referred to were made to my satisfaction and I hereby give my informed and voluntary consent to the proposed procedure(s) or operation(s).

Signature of patient:

_________________________________________________

If the patient is unable to give informed consent because of physical or mental incapacity or mental incapacity or is a minor (under 18 and unemancipated), complete the following:

Patient is unable to give consent because ____________________________________________________________________ ____________________________________________________________________

Witness to signature

I certify that I have explained to the above individual the nature, purpose, risk and potential benefits of the above procedure and have answered any questions that have been raised.

____________________________________________________

Signature of Physician