Bleb Needling

Why might I need Bleb Needling?

During your glaucoma surgery (Trabeculectomy) a small opening is made in the white coat of the eye, under the upper eyelid, to let the fluid escape and lower the pressure. The fluid that flows out of your eye forms what we call a bleb, which is like a small cyst or blister under the conjunctiva, the thin transparent layer that covers the white of your eye.

Drainage surgery for glaucoma (Trabeculectomy) may fail to bring the pressure low enough or may scar and fail. This can occur shortly after the operation is performed or at any time afterwards. In some cases bleb needling may be the next step to restore drainage and achieve a lower eye pressure.

How does it work?

The needling involves breaking down the wall of the scar tissue using a fine needle. This will help to improve the drainage of the watery fluid called aqueous humour into the bleb and so restore or enhance its function to lower intraocular pressure. An anti-scarring drug is then injected to try to prevent further scar formation occurring.

What happens on the day of treatment?

The needling is usually done in the operating theatre. You will be asked to attend ward 54 at the Manchester Centre for Vision, Manchester Royal Eye Hospital or the Alexandra Hospital in advance of the treatment time. Further instructions about this will be given in...
the letter discussing your admission details. Written consent for the procedure will be taken, if not previously done, and I can explain further if you have any questions.

The procedure is commonly done under local anaesthetic but may be done whilst you are asleep under general anaesthetic. This will be discussed with you prior to your admission. The local anaesthetic involves drops that numb the front of your eye and an injection in the skin around your eye, which will make the area around your eye go numb. This may last for a few hours and can affect your vision at the time.

The needling involves breaking down the wall of the scar tissue using a fine needle. A jelly-like material and an anti-scarring drug is then injected to try to prevent further scar formation. At the end of the procedure, an injection of antibiotic and steroid is given to reduce the risk of infection and inflammation. Afterwards an eye pad or clear shield will be placed over your eye.

Your intraocular pressure will be checked about an hour after the procedure. It is important that you do not drive, and you may wish to arrange for someone to take you home. You will be given drops to take at home. You will probably not need to continue your glaucoma eye drops (and or tablets) the doctor will advise you of this before you leave. You will receive an appointment to come back to the clinic usually about 1 week after the procedure.

Are there any risks or side effects of this treatment?

Immediately afterwards your eye may look bloodshot. This may result from the injections given to the skin of your eye. Your eye may feel slightly bruised afterwards and sometimes become inflamed. The eye drops will control any inflammation and help to relieve discomfort. You may wish to take a mild painkiller, for example Paracetamol, to relieve this discomfort. **If you are already taking painkillers for a different condition continue with these, but do not take both.**

The most serious problems that can arise are bleeding or an infection inside the eye. Bleeding can occur at the time of or shortly after the operation and can lead to loss of vision even rarely blindness. This
can happen in 1 in 1000 to 1 in 100 people. Infection inside the eye is similarly serious and can have the same outcome of visual loss and can happen in about 1 in 1000 people. The pressure in the eye may rarely go too low after the operation, called hypotony, and may require further intervention or additional treatment. The anti-scarring agents may cause a leak from the wound or a change to the clear window at the front of the eye (cornea) which recovers in almost all cases. These are the same risks that can happen at the time of the initial trabeculectomy or glaucoma drainage surgery. Sometimes it is necessary to have a change in spectacle prescription after the procedure.

**How successful is it in lowering the eye pressure?**

Over 50% of the eyes treated in other studies have better drainage and our local audit results are very good and show about 70% have a successful lowering of pressure. It is most successful when glaucoma surgery has been performed recently. The effects of the needling may need to be enhanced by further injections of the anti-scarring agent 5-Floururacil in outpatients afterwards. The effect can wear off in time as further scarring of the bleb occurs but may last for months or years. The treatment can be repeated if necessary.

**Contact information**

The information in this leaflet is intended as a guide only, as each patient's experience will be different. If you require any further information or are concerned about your eye following laser treatment, please contact my secretary at the Alexandra hospital, the telephone number is 0161 495 6815.

If you are unable to speak to my secretary, please ring my secretary at the Eye Hospital who can contact me. The telephone number is 0161 276 6949. If you are unable to contact my secretaries or me at the Eye Hospital and are concerned then the Emergency Eye centre on 0161 276 5597 is open everyday between 8.00 am and 9.00 pm.