

Submacular haemorrhage

Patient information leaflet

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What is a submacular haemorrhage?

The retina is the light-sensing tissue that lines the back of the eye. The macula is a small, but important area at the centre of the retina that is essential for detailed and discriminating vision. This is the part of the retina that is used for reading and for making out the fine details of objects.

Submacular haemorrhage occurs when bleeding ('haemorrhage') occurs underneath the macula ('sub' = under) often from abnormal vessels within or underneath the retina. These abnormal vessels commonly occur in patients with wet age-related macular degeneration (AMD), inflammation or trauma to the eye. Submacular haemorrhage can also result from an aneurysm of the retinal vessels.



Photograph showing a submacular haemorrhage.

What are the symptoms of a submacular haemorrhage?

Patients usually experience sudden loss or distortion of central vision but without any pain. If left untreated, the blood clot can damage the light sensitive cells (the photoreceptors) and the central vision will be permanently lost.

What are the treatment options?

Options for treatment include one or more of the following:

1. Injection of TPA (tissue plasminogen activator) into the eye
2. Injection of a gas bubble into the eye
3. Surgery (vitrectomy)

TPA is a clot-buster protein that breaks down blood clots. It is injected into the vitreous jelly of the eye ('intravitreal injection'), with the aim of breaking down the blood clot to help it absorb quicker or to move it away from the macula before it causes any significant damage to it.

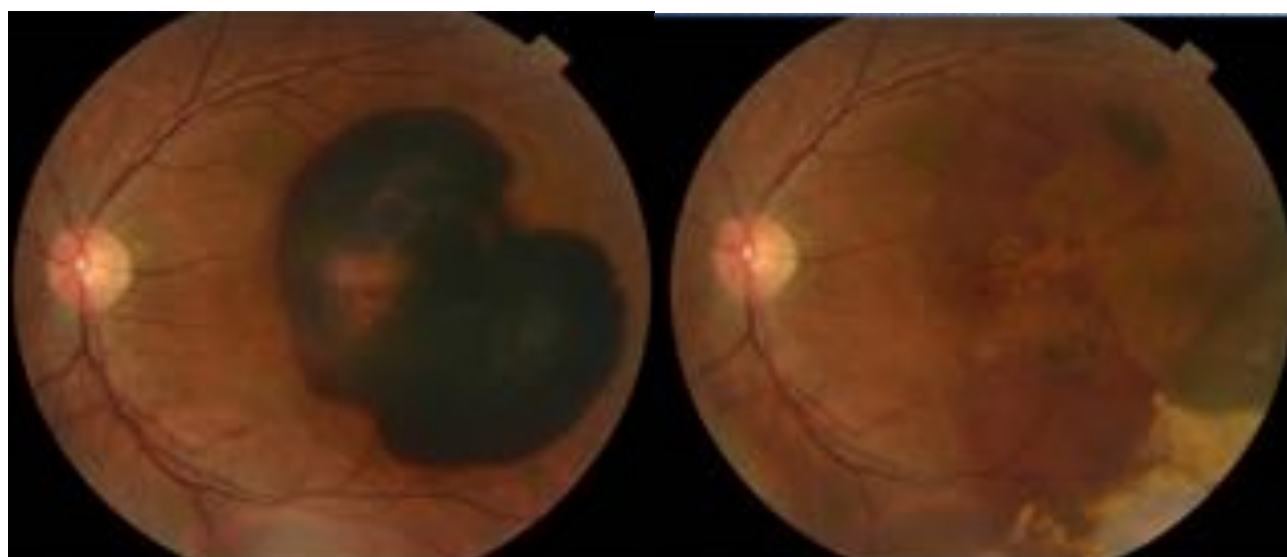
An injection of TPA is often combined with an injection of a gas bubble, which also helps to displace the blood clot if it is large. The gas bubble injection is often performed on the same day or one day following the TPA injection.

When the blood clot is large or thick or has not sufficiently absorbed after the injection of TPA and gas, an operation may be needed to drain the blood from underneath the retina. The vitreous gel (a jelly-like structure

that is found at the back of the eye) is removed, which allows access to the retinal tissue. The blood clot is then drained through a small hole from underneath the retina.

What are the success rates of treatment?

Using the above treatment steps, we are able to displace the blood and improve the vision in the majority of the patients. It is important to remember, however, that even with successful displacement of the blood, vision may not return to its pre-existing level.



Photograph showing a submacular haemorrhage before treatment (left) and after treatment (right).

What happens if no treatment is performed?

Studies have shown that the blood usually resolves in about 6 months, but in the majority of patients results in permanent damage to the central vision due to scarring of the macula.

What are the side effects and risks of the treatment?

Common side effects are:

- Red eye – due to mild bruising on the surface of the eye, which clears in 1-2 weeks
- Sore and gritty eye – due to disturbance to the eye surface, which clears in 1-2 days
- Floaters (blobs/lines/specks in your vision) may be more evident, but should settle in 1-2 weeks

Serious but rare risks are:

- Infection or severe bleeding in the eye: 1 in 2000
- Detachment of the retina, requiring another surgery: 1 in 10
- Cataract (unless you have already had cataract surgery) in almost all the patients in 1 to 2 years.

What should I expect following treatment?

You may need to 'posture' following the injections or surgery. This involves positioning your head in a 'face down/reading position' for a period of time, usually for 5 days. Whilst this can be uncomfortable, it is important to try to do this as it helps to displace the blood clot.

It is also important that treatment for the underlying condition continues, e.g. injection for AMD to avoid recurrence of the bleeding.

Do I need to take time off work?

If you have an injection into the eye, you should be able to return to work the next day. However, you will need approximately one week to recover following vitrectomy surgery. This may vary depending on your job.

When can I drive?

This depends on the vision in your other eye. Your doctor will be able to advise you about this.

Contact details

Royal Eye Unit

Mon-Fri 8.30am to 5pm

0208 934 6404

Moorfields at St Georges' Hospital (Duke Elder Ward)

Mon-Fri 5pm to 8.30am, weekends and Bank Holidays

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