MACULAR HOLE

What is macular hole?

Macular hole is a condition affecting patients beginning in their 60s onwards, usually female, where a tiny hole develops in the very centre of the retina (called the macula). Patient will experience central distortion of vision, and then gradual loss of reading vision.

Other causes of macular holes include after trauma, in very short-sighted people (people who need distance glasses) or with retinal detachment.

How is the diagnosis confirmed?

Usually the diagnosis can be made by clinical examination or through an imaging test called OCT (optical coherence tomography) scan to confirm the condition.

How can it be treated?

Treatment is by surgery through a procedure called pars plana vitrectomy. Three tiny holes are made in the sclera (white of the eye) and the vitreous jelly is removed, together with a very thin membrane (the ILM or inner limiting membrane). A gas bubble is then placed into the eye. This gas bubble is absorbed by itself over 4 to 6 weeks after surgery. In the past, patients were positioned face down for 7 days, and will require cataract surgery within 6 to 12 months after surgery (unless they have combined cataract surgery at the same time). Patients must not fly or drive while they have a gas bubble in the eye.

What anaesthetic is required for the surgery?

Local anaesthetic with a simple injection over the eyeball will be sufficient to give pain relief during the surgery. However, everyone is different and patients who prefer general anaesthetic will depend on their general health if they are fit for it.

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What is it like to have a gas bubble in the eye?

The vision is very blurred if there is a gas bubble in the eye like a sensation of having your eyes open under water. As the gas bubble gets smaller, patients will notice it's edge as wobbly line in the upper field of vision. This will then drop downwards in the field of vision until it becomes a round blob in the bottom before it disappears.

What happens if the macular hole is not treated?

The central vision will slowly get worse and reduce your ability for tasks like reading or recognising faces. The peripheral part of the vision will remain unaffected and the eye will never become totally blind.

What are chances of developing a macular hole in the other eye?

15% patients can develop a hole in the other eye.

What are the alternatives to vitrectomy surgery in the treatment of macular holes?

A new treatment by intravitreal injection of the enzyme JETREA (Ocriplasmin) has been approved (October 2013) by the National Institute of Clinical Excellence (NICE) in treatment of small macular holes. An intravitreal injection of JETREA is a procedure without need for a gas bubble or any face down positioning. However, vitrectomy surgery may still be required if the injection is not successful at closing the macular hole (40 to 60% of patients).

In some cases, these smaller macular holes can close by itself without any surgery.