

Guideline for Hospital Admission

Ministry of Public Health - Lebanon

Vitrectomy is generally considered as a necessity for the treatment of vitreous strands, vitreous retraction, retinal detachments, or proliferative retinopathy.

The following conditions may indicate necessity for vitrectomy:

- Severe proliferative diabetic retinopathy
 - o Vitreous hemorrhage
 - o Retinal detachment
 - o Macular hole
 - o Macular pucker
 - o Pre-retinal membrane fibrosis
 - o Combined traction/rhegmatogenous retinal detachment (retinal tear associated with retinal detachment)
- Floaters
- Non-diabetic vitreous hemorrhage
- Traumatic penetrating ocular injury
- Culture-proven, rapidly progressing endophthalmitis
- Cataract extractions complicated by vitreous loss or underlying inflammatory condition
- Dislocated intraocular lens
- Refractory uveitis
- Refractory macular edema

Other

Vitrectomy involves the severance and removal of vitreous matter from the posterior chamber of the eye. The procedure involves three functions: cutting, suction, and infusion. Some vitrectomy systems combine all three functions in a single probe, while others use two probes—one for cutting and suction and the other for infusion. Using an operating microscope, a primary incision into the sclera is made, where the vitrectomy suction cutter is inserted. When suction is initiated, gelatinous vitreous tissue is drawn through a port in the probe tip and then severed by a rotating blade piece. Infusion of saline ensures that the globe remains distended so that vitreous strands, vitreous retraction, retinal detachments, or proliferative retinopathy may be treated.

The three basic kinds of vitrectomy procedures are:

1. Anterior vitrectomy using scissors or needle, often performed as part of a cataract extraction or corneal transplant;
2. Anterior vitrectomy using instruments such as VISC or rotoextractors, often involving cutting of membranes and freeing of adhesions;
3. Posterior vitrectomy using VISC or rotoextractors, frequently done in diabetic patients with massive vitreous hemorrhages and membranes.

References:

Myron Yanoff, Jay S. Duker (2008). *Ophthalmology, 3rd edition*. Elsevier Health Sciences.
https://www.bcidaho.com/providers/medical_policies/sur/mp_70124.asp

Condition	Present	Absent
Floaters		
Non-diabetic vitreous hemorrhage		
Traumatic penetrating ocular injury		
Culture-proven, rapidly progressing endophthalmitis		
Cataract extractions complicated by vitreous loss or underlying inflammatory condition		
Dislocated intraocular lens		
Refractory uveitis		
Refractory macular edema		
Severe proliferative diabetic retinopathy with:		
Vitreous hemorrhage		
Retinal detachment		
Macular hole		
Macular pucker		
Pre-retinal membrane fibrosis		
Combined traction/rhegmatogenous retinal detachment (retinal tear associated with retinal detachment)		
