Diabetic vitrectomy: Indications, Techniques & Outcomes

Indications

Maculopathy

Little evidence to support vitrectomy for maculopathy

Vitreous haemorrhage

Present for at least six weeks
Earlier if:

- incomplete previous pan-retinal laser
- poor vision in other eye
- sub-hyaloid haemorrhage
- pseudophakia

Recurrent haemorrhage is usually indication for vitrectomy not additional laser

Traction detachment

Affecting or threatening macula

Techniques

No evidence to prove superiority of one technique over another

Delamination

Removes entire posterior hyaloid, reducing risk of re-proliferation
Divide "pegs" attaching posterior vitreous face to retina, using traction from remaining vitreous to elevate the hyaloid

Vitreoschisis

Present in most cases of traction detachment affecting macula
Identifying this layer is critical to entering the correct surgical plane

Entry site cryo

Recently suggested that this may reduce risk of recurrent haemorrhage after vitrectomy

Outcomes

Prospective study of 180 vitrectomies at Moorfields

Complications

Post vitrectomy haemorrhage	22%
Retinal detachment	3%
Rubeosis	3%
Cataract (phaco during F/U)	12%

Cataract less common after diabetic vitrectomy, possibly because of hypoxia

Vision

6/18+	36%
6/60+	72%
1/60 or less	17%

Vision change

Improved by 2+ lines	75%
Worse by 2+ lines	9%

1:7 vitrectomies restores sight to a blind person

Risk factors for poor visual outcome

Poor pre-op vision in operated eye
Poor pre-op vision in contra lateral eye
Traction detachment affecting macula
Use of long-acting internal tamponade

Conclusion

Complications following diabetic vitrectomy are rare, but visual outcomes depend on the severity of macular ischaemia, which is unpredictable