

# TREATMENT OF SEVERE DIABETIC RETINOPATHY

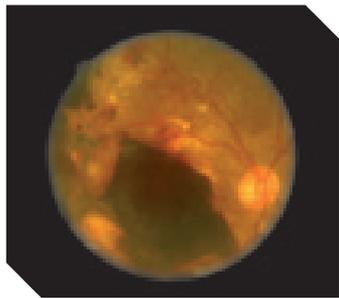
by **Dr Yeo Kim Teck**, Senior Consultant, Apple Eye Centre

Severe diabetic retinopathy (diabetic eye disease) is fortunately less commonly seen in clinical practice in Singapore nowadays compared to two decades ago. This is a result of greater awareness of diabetes and its related systemic complications, better monitoring and control of systemic risk factors like blood sugar and high blood pressure. Extensive and regular eye screenings by various clinics, hospitals and optometrists in the last 20 years have no doubt contributed to earlier diagnosis and earlier treatment of the sight-threatening diabetic eye disease.

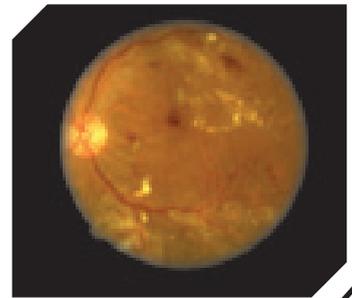
The treatment of severe diabetic retinopathy used to be with the laser (argon laser photocoagulation) and occasionally posterior vitrectomy (eye surgery to remove blood, membranes and/or reattach any concurrent retinal detachment). The availability of anti-VEGF has altered the prognosis of otherwise difficult-to-treat eyes. These drugs act by "shrinking" abnormal blood vessels thereby reducing bleeding (haemorrhage) and leakage of fluid (oedema) and fat-protein substances (hard exudates). These are sequential photographs of a patient from a neighbouring country who suffered from severe diabetic retinopathy. In this serious and potentially blinding situation, all three common treatment methods were employed. These are

1. Argon Laser Photocoagulation
2. Posterior Vitrectomy
3. Intravitreal injection of anti-VEGF (Lucentis or Avastin)

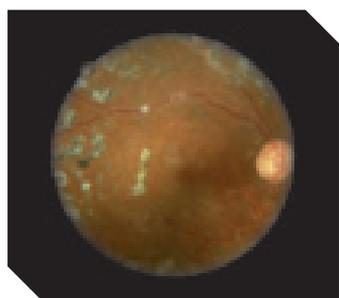
Prevention and reducing the risks of diabetes-related eye complications by good long term monitoring and control of blood sugar blood pressure, lipid levels and other risk factors remain the best things that you as someone with diabetes can do.



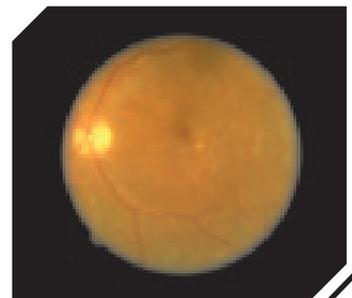
Right retina showing advanced proliferative diabetic retinopathy with retinal bleeding and traction detachment at presentation (22.11.2010)



Left retina showing severe diabetic "maculopathy" or macular edema (yellow hard exudates) during patient's first clinic visit a year ago (22.11.2010)



Right retina a year later: patient had a vitrectomy operation as well as anti-VEGF and argon laser photocoagulation (25.11.2011)



Left retina a year later: patient had intravitreal anti-VEGF and argon laser photocoagulation (25.11.2011)