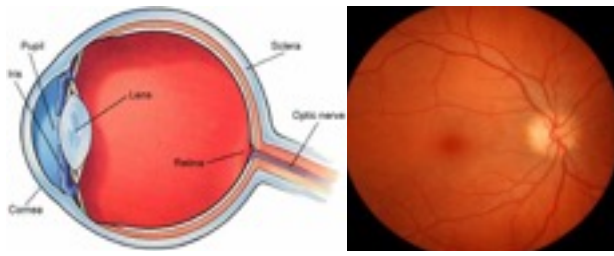


Ageing, Diabetes & Hypertension and Your Retina

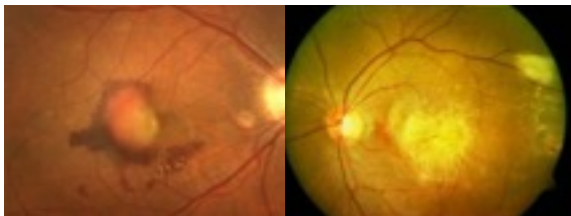


Retina is the film lining the inner wall of eye ball on which all images form. Vitreous is the gel that fills the eyeball and is attached to the retina in young age.

Age affects the retina in the following ways:

1. **Posterior Vitreous Detachment:** Vitreous liquefaction & separation from retina felt as floating particles and flashes of light. This can cause retinal tears and retinal detachment. Retina should be examined atleast once so that any retinal tears can be closed with retinal laser to prevent retinal detachment.
2. **Age related Macular Degeneration (AMD):** Affects centre of retina, causing loss of ability to read/ write/ recognize faces/ enjoy TV.

AMD can be Dry or Wet Type. Dry AMD is loss of quality of retina. In Wet AMD abnormal blood vessels grow into macula and cause scarring with rapid vision loss in few months.



Risk Factors include family history of AMD, **smoking**, high BP, excessive sun exposure.

Prevention involves stopping smoking, vitamin rich diet (fruits & vegetables plenty), physical exercise, sunglasses outdoors (UV protection), eye checks every 2 years after age 45 years

Treatment: Dry type is treated with high dose vitamins

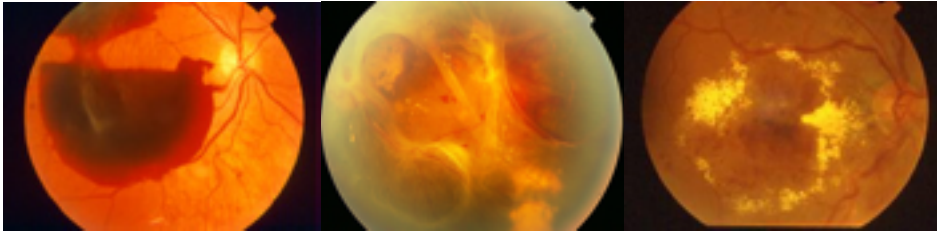
Wet type requires injections of specific medicines into the eyeball every 4-6 weeks till blood vessels regress. May need several injections for many months to years.

Diabetes and the Retina

Diabetes causes diabetic retinopathy and macular edema. Risk increases with duration of diabetes, uncontrolled diabetes, uncontrolled BP, lipids, smoking, alcohol, kidney problems, smoking, anaemia and heart problems.

Diabetic Retinopathy: Causes internal bleeding, retinal detachment and blindness. Can be prevented by retinal laser done at the right time. In late stages vitreo-retinal surgery is required.

Yearly retina check is essential for every diabetic so that laser can be done at the right time.

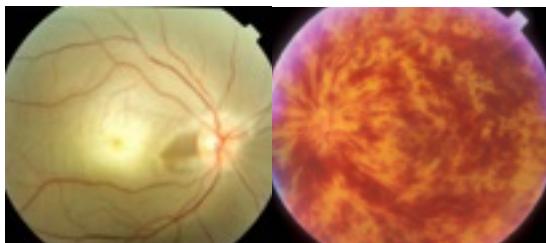


Diabetic Macular Edema: Swelling of the central retina causing loss of sharpness of vision. Treatment is with injections of specific medicines into the eyeball and with mild laser.

Hypertension and Retina

High BP can cause closure of central retinal artery or blood supply to optic nerve leading to sudden permanent vision loss.

Closure of retinal veins, the outflow channels, causes increased back pressure leading to leakage, bleeding and swelling of retina (macular edema). Treatment is with eye injections of avastin or lucentis or steroids (tricort or ozurdex implant) every 1-3 months.



Recommendations for retinal health:

1. Maintain good general health after age 45 years with Regular Physical Exercises
 2. Diet modification: Vegetables, fruits rich, low on carbohydrates, sugars and fats
 3. Stop Smoking/ alcohol
 4. Vitamin supplements
 5. Strict control of diabetes, hypertension, raised cholesterol etc
 6. Eye check every 2-3 years after age 45 years
 7. Retina check every year for those with diabetes, family h/o AMD
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