

# DIABETES: A LEADING CAUSE OF BLINDNESS

## WHAT DOES THE EYE DOCTOR LOOK FOR?

- Microaneurysms, dot blot hemorrhages and hard or soft exudates
- Growth of new blood vessels
- Pre-retinal or vitreous hemorrhage
- Retinal detachment

## HOW DOES HE CHECK THE EYE?

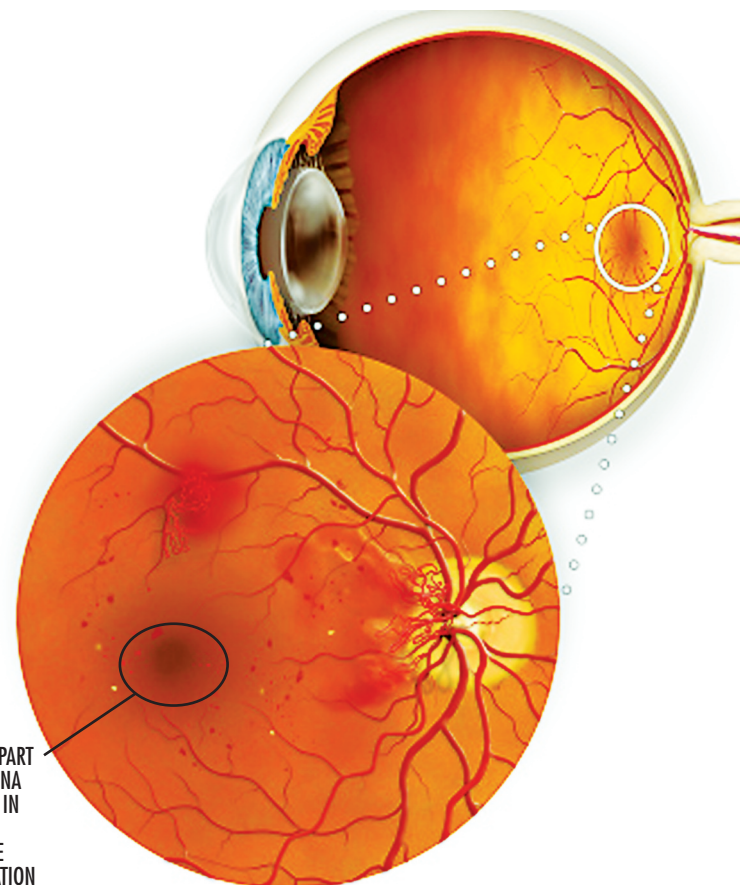
- A Fundus Fluorescein Angiography (FFA) is done by injecting a dye in the arm and checking the retina for leakages and blockages.
- An optical Coherence Tomography (OCT) is done to know the thickness (swelling) of the retina which may aid in forming the treatment plan.

## WHAT IS THE TREATMENT?

**LASER TREATMENT OR LASER PHOTOCOAGULATION** is the most common line of action. But remember, the laser treatment can only save the existing sight level and cannot make it better. Laser photocoagulation seals the micro aneurysms that are leaking fluid into the retina. This is called the Focal or Grid laser photocoagulation and is done in a single sitting. If new blood vessels are growing then more extensive laser treatment has to be carried out which is called Pan Retinal Photocoagulation (PRP) and is carried out over two or three sittings spread over 1 – 2 weeks. In most cases, laser treatment causes the new blood vessels to regress and the swelling to subside. Laser treatment usually takes three to four months to be fully effective.

**VITRECTOMY:** Sometimes the new blood vessels bleed into the gel like centre (vitreous) of the eye. This condition -Vitreous haemorrhage- can lead to sudden loss of vision. If the vitreous haemorrhage is persistent, then a procedure called Vitrectomy is recommended. This is a microsurgical procedure which removes the blood and scar tissue from the centre of the eye. Many patients can have improved vision after Vitrectomy.

## PROLIFERATIVE DIABETIC RETINOPATHY



MACULA, A PART OF THE RETINA THAT HELPS IN READING AND IN FINE DISCRIMINATION

**W**hat do Wasim Akram, Kamal Hasan and Halle Berry have in common? Nothing, except that they are all at risk of losing their vision. All are long-standing diabetics and if they do not get regular preventive eye examinations, chances are that they may fall prey to one of the most common causes of blindness in the world—diabetic retinopathy.

The longer a person lives with diabetes, the more prone he becomes to diabetic complications which can affect the eyes, kidneys, nerves among other organs. The eye is among the organs, most commonly involved in diabetes. Not only are diabetics more likely to develop cataract early, but their retinas are vulnerable to damage, too.

The retina is like the screen on which the image of whatever we see falls and any damage to this can lead to permanent vision loss. In diabetics, the small retinal blood vessels get damaged. This has two consequences; the vessels become more leaky resulting in accumulation of fluid in the central part of the retina (called the macula). This accumulation of the fluid in the central retina leads to Diabetic Maculopathy which causes vision loss and affects the ability to read. Secondly, the peripheral vessels become obliterated and their closure hinders the supply of oxygen and nutrition to the retina. This results in the development of brush like new fragile vessels which finally bleed

and cause cloudiness of vision, blind spots, floaters or even sudden loss of vision in the late stage. In early stages, usually Diabetic Retinopathy does not produce visual symptoms strong enough to get noticed.

As in most lifestyle related disorders, diabetics can keep their eyes healthy by keeping their glucose and lipid profile levels under control. Cutting out smoking and maintaining a healthy level of fitness with a normal blood pressure would certainly help.

**D**iabetic retinopathy creeps silently. The earliest form of diabetic retinopathy is called Non – Proliferative Diabetic Retinopathy. In Non-Proliferative

Diabetic Retinopathy (NPDR) there are next to no symptoms.

As it progresses, it reaches the proliferative stage (proliferative diabetic retinopathy) with the development of fragile vessels. If it is not treated even by this stage, the patients are at risk of going blind due to occurrence of Vitreous haemorrhage and its sequelae.

Watch out for the next part of this series on March 29, 2009.

eye opener

PUBLIC EDUCATION SERIES BY

**CENTRE FOR SIGHT**

A TIMES BUSINESS ASSOCIATE COMMUNICATION

## WIN FOR YOUR EYES

ANSWER THE FOLLOWING QUESTION CORRECTLY TO WIN A FREE EYE EXAMINATION / A PAIR OF SUNGLASSES

Q: Vision loss in diabetes can occur due to:

A) Involvement of the macula ; B) Vitreous Haemorrhage ; C) Cataracts; D) All of the above

Type CFS <space> correct answer (A, B, C or D), TOI, Name, Area Pincode and Address and send in your entries to 9848356765 by March 16, 2009. Winners will be decided through a lucky draw.

Winner of Series 1: **Mr P.M. Mehta** of Delhi

\* ONLY REGISTRATION FEE OF RS 50 NEEDS TO BE PAID

## IF YOU ARE DIABETIC

- You must get a complete eye check up done
- 20 per cent of new diabetics who got eye examinations done showed signs of early retinal damage
- Such patients need an eye examination on a six-monthly to three-monthly basis

## LIMITING DIABETIC RETINOPATHY

- Early detection
- Vision damage due to retinopathy is PREVENTABLE; if detected early
- There are no early symptoms
- So, regular preventive eye check ups are a must

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