#### 糖尿病引致的眼疾

糖尿病是一種頗常見的疾病,會影響心臟、腎及血液循環等。 糖尿病亦會影響眼睛,糖尿病視網膜病變是常見的致盲疾病。 糖尿病主要把視網膜的血管破壞及引致視網膜缺氧。初期 視網膜血管因受損導致流血或滲漏眼液或血漿而形成局部地方 腫脹及缺氧和養份。初期的糖尿病視網膜病變是沒有症狀的。 當腫脹在黃斑點形成時,可能會發覺視力變差或看到的物 體會變形。

在後期會產生一種血管病變。新生之微血管會在視網膜表層 增生。因其結構十分脆弱,故此十分容易出血,導致玻璃狀體 出血,使視力模糊。亦可令視網膜纖維化,導致繼發性 視網膜脱落。

此外糖尿病亦會有其他情況影響眼睛:如過早有老花眼,視力 間歇性糢糊,加速白內障之形成,繼發性青光眼等。 如有需要眼科醫生會建議以下三種常用療法: 激光治療法:目的在利用激光能量凝固及破壞部份缺氧 視網膜使病變血管減退或防止其增生。

**玻璃狀體清除手術**:目的在把充血的玻璃狀體清除, 使光線能照射到視網膜上。

**視網膜手術**:一般來說,病變後期之增殖性糖尿病視網 膜病變都需要用手術將玻璃體切除及切除眼球內之纖維 體。此種手術非常複雜,成功率視乎個別情況而定。

糖尿性視網膜病變病症通常是沒有徵兆。所以預防與 及早發現十分重要。請把糖尿病的病情控制好,多注意 均衡的飲食,和依照眼科醫生的建議作定期眼部檢查。 及早發覺可預防視力受損。



## **Call** 2200 3240

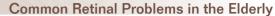
- Fax no. 2200 3448
- Address 4/F East Wing, St. Teresa's Hospital, 327 Prince Edward Rd. West, Kln.
- Website http://www.stheye.hk



### Common Retinal Problems in the Elderly 老年常見的**親網膜問題**



Eve and Refractive Surgery Centre



Retina is an important structure at the back of the eye. It converts light received by the eye into visual images, just like the film in a camera. Macula is the central posterior part of retina. It has the highest density of vision cells, photoreceptors, and is responsible for central visual acuity. There are plenty of yellow pigments in the macula region, thus the name "Yellow spot". Diseases affecting retina include Age-related Macular Degeneration, diabetes mellitus, high myopia, etc.

#### 老年常見的視網膜問題

視網膜組織是眼睛的後面部位,功能在於把眼裡所接收的光線 轉為視像,仿似相機內的菲林。『黃斑點』是眼睛視網膜最後面 中央的部位,是感光神經細胞密度最高,視力最敏鋭的區域。 含有大量的「黃色素」,在眼底鏡下呈現暗黃色,因而名 『黃斑點』。會發生於視網膜的疾病有很多,最常見為老年黃斑 病變、糖尿病、高度近視等等......



#### Age-related Macular Degeneration

Age-related Macular Degeneration (ARMD) is degeneration of retinal photoreceptors from aging. Patient may experience distorted images of objects, blurring of vision, a grey spot or a black hole at the center of vision. The eye can go blind in severe cases.

#### 老年黃斑病變

老年黃斑病變是隨著年齡增加,視網膜細胞吸收不到所需的 養分而發生退化所致。症狀包括:景物扭曲變形、視力模糊、 視中心光感變灰暗或出現黑洞,嚴重時會致盲。

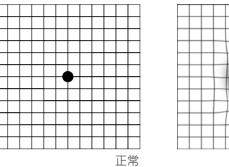
# Problems in the Elderly Laser therapy

# Simple vitrectomy vitreo-retinal surgery

## Dry ARME

# Treatment of ARMD

#### 阿姆斯勒方格表



#### Types of Age-related Macular Degeneration

**Dry ARMD** accounts for about 90% of cases and progresses very slowly. Vision is seldom severely affected. Treatment is generally not required. Regular follow up is advised.

Wet ARMD accounts for about 10% cases. Abnormal blood vessels grow underneath retina. Leakage and bleeding of these blood vessels will cause distortion of visual images, grey central spot and loss of central vision. Vision can deteriorate quite rapidly in a few weeks to months.

#### Treatment of ARMD

Treatment is targeted at destruction of abnormal blood vessels. Laser therapy uses high energy laser light to close down the abnormal blood vessels. Photodynamic therapy is a two step procedure. Firstly, a photo-sensitizer is injected into the blood stream. The photo-sensitizer will "stick" to the abnormal blood vessels. Secondly, a low-energy laser will be used to "activate" the photo-sensitizer, causing a chain reaction to close down the abnormal blood vessels.

#### Prevention of ARMD

The most important preventive measure is to quit smoking. Green vegetables and fresh fruits are encouraged while highly saturated fat and cholesterol should be avoided.

#### 老年黃斑病變的種類

**乾性**老年黃斑病變約佔百分之九十,病變進行緩慢。初期 對視力影響輕微,少部分患者到後期會影響視力,一般不需要 治療,但須定期檢查。

**濕性**老年黃斑病變約佔百分之十,即是視網膜下的脉絡膜長出 不正常的新生血管,這些血管會使視網膜水腫及出血, 造成景物扭曲變形,最後由小暗點變成大暗點而喪失中心 視力。當眼睛開始病變後,病變速度可以非常之快,可在短短 幾星期至幾個月內變得很嚴重。

#### 老年黃斑病變的治療

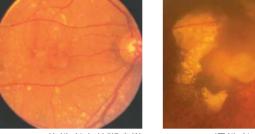
黃斑病變

治療方法皆以控制或破壞視網膜下新生血管為目的。 「激光治療」就是利用能量密度極高的光束集中於眼組織上, 化成為熱量(熱效應)以封閉出血或滲漏之血管。 「光動力療法」是一個兩步驟的治療。首先,醫生會為患者靜脉 注射一些藥物作為感光劑。這些感光藥物會選擇性地積聚在 不正常的新生血管。然後再用非熱能激光活化這些藥物,而所 引起的連鎖反應,會把不正常的血管堵塞,制止出血及滲水。

#### 老年黃斑病變的預防

戒煙對吸煙者是最重要的預防工作。多吃綠色蔬菜和生果, 少吃高飽和脂肪及高膽固醇的紅肉類應可降低發生黃斑病變的





乾性老人黃斑病變

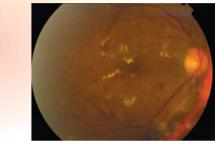
濕性老人黃斑病變

#### Diabetic Eye Disease

Diabetes mellitus may affect our kidneys, heart and circulation. Diabetes can also cause damage to our eyes. Diabetic retinopathy is one of the commonest types of diabetic eye disease that damage our retina. It is one of the leading causes of blindness in developed countries. It does so by damaging healthy blood vessels in our retina. It also starves the retina with oxygen thereby promoting growth of new fragile blood vessel. In the early stages when blood vessels in the retina are damaged, they can leak or bleed. This stage can be asymptomatic. When swelling appears in the macula, reading may become difficult. Image may be distorted.

At a later stage, new fragile blood vessel grows on the surface of retina that leads to severe vision problems. New fragile vessel leaks and bleeds into vitreous (a clear jelly-like substance in our eyes), giving us a blurred or distorted vision. New fragile vessel can cause scar tissue to develop, which can pull retina away from the back of our eyes, known as retinal detachment. Retinal detachment is a blinding disease.

Diabetes mellitus can affect our eyes in other ways: earlier onset of presbyopia, accelerated cataract development, secondary glaucoma...



糖尿病視網膜病變

## When indicated there are 3 main types of surgery your eye doctor may advise you:

**Laser therapy:** spots of laser beam are directed to the retina to seal the leaking new fragile vessel or at coagulate the retina in other areas to reduce growth of new fragile vessel.

Simple vitrectomy: surgery to clear blood from vitreous.

**Complicated vitreo-retinal surgery:** when the retina came off (detached) because of the advancing diabetic retinopathy you may need vitrectomy and scar removal plus putting air/oil into the eye, or indenting the eye, or freezing/burning a few spots of the eye all in the attempt to put the retina in place again. This is a complicated surgery with risks involved.

Diabetic retinopathy is usually asymptomatic until late. Prevention of blinding complication and early detection are very important. Please remember to keep your diabetes under control, maintain a healthy and balanced diet, and perform regular eye exams as recommended by your eye doctor. Remember: Early detection is essential in preventing vision loss.