



To News Editor  
For Immediate Release

28 July 2009

**CUHK is the First in the World to Identify a New Relationship between  
Silent Cerebral Infarct and Deterioration of Normal Tension Glaucoma**

It was estimated that by 2010, over 60 million people in the world will be suffering from glaucoma. Among them, over 15 million will be in China. About 1 in 38 of those aged over 40 will be affected by glaucoma. Glaucoma remains the number one cause of permanent blindness in Hong Kong, accounting for about 1 in 4 cases. Traditionally, glaucoma is thought to be caused by raised eye pressure, which leads to damage to the optic nerve. As a result, patients will suffer from a gradual loss of visual field and vision, potentially leading to blindness.

‘However, the world comes to realize an important fact that, as many as 50% of patients with glaucoma have their eye pressures at a “normal” or even low range. Raised eye pressure is a risk factor, but not the only cause of glaucoma. A raised eye pressure is no longer part of the definition of glaucoma,’ said Professor Clement Chee-yung Tham, Professor, Department of Ophthalmology & Visual Sciences, The Chinese University of Hong Kong (CUHK). Apart from raised eye pressure, the other factors which may cause glaucoma are not known yet.

‘With advancing diagnostic imaging tools, more patients are nowadays diagnosed to have glaucoma at an earlier phase of their disease. This shall mean earlier treatment and better outcomes,’ said Professor Christopher Kai-shun Leung, Associate Professor, Department of Ophthalmology & Visual Sciences, CUHK. Various newer investigation modalities, such as Optical Coherence Tomography (OCT), detect structural defects before functional loss in patients with glaucoma.

‘The concept of target eye pressure revolutionized the treatment of glaucoma. In the past, the aim of glaucoma treatment was to return the eye pressure to a “normal” range (6-21mmHg). Many patients still develop significant worsening of their visual function despite their pressures are well within the normal range. So the normal range may not be safe or that “normal”. Nowadays, the target treatment pressure is individualized for each patient, depending on many factors such as age, the type of glaucoma, the stage of the disease, the rate of worsening, and other coexisting risk factors for deterioration. The target treatment pressure could be lower than 10mmHg. These are paradigm shifts,’ said Professor Dennis Shun-chiu Lam, Chairman, Department of Ophthalmology & Visual Sciences, CUHK.

‘In a prospective 3-year study of 286 patients with Normal Tension Glaucoma (NTG), we demonstrated that patients with Silent Cerebral Infarcts (SCI), an asymptomatic stroke-precursor condition, were 61% more likely to have their NTG worsened than those without,’ said Dr. Dexter Yu-lung Leung, Clinical Assistant Professor (honorary), Department of Ophthalmology and Visual Sciences, CUHK and Associate Consultant of Hong Kong Eye Hospital. ‘Our study is consistent with a growing body of evidence that a number of vascular factors are likely to be involved in normal tension glaucoma. This study gives more evidence to challenge the old belief that glaucoma is a disease due only to high eye pressures,’ said Dr. Leung, who was also the principal investigator of the study.

The results of this study were published in *Ophthalmology*, the official journal of the

American Academy of Ophthalmology (AAO), which is considered as the leading authority in the field of ophthalmology. The study has been cited by AAO and has stirred up much discussion across the globe.

---

Remarks: The Faculty of Medicine, CUHK is pleased to announce that a surgical video produced by Professor Dennis Shun-chiu Lam has received 2 international awards recently as follows:

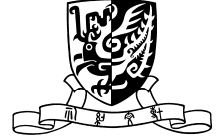
1. Winning Award (1<sup>st</sup> prize) in the “Glaucoma Surgery” Section of the Annual Congress of American Society of Cataract and Refractive Surgery, April 3-8, 2009, San Francisco, USA;
2. Winning Award (1<sup>st</sup> prize) of the Film Festival of the 3<sup>rd</sup> World Glaucoma Congress, July 8-11, 2009, Boston, USA.

The video is about how to use the ‘Needling’ technique in treating failed trabeculectomy, the most commonly performed glaucoma operation.

For those who are interested in the video (8-minute long), please refer to: [www.cuhk.edu.hk/medint/ovs/dovs](http://www.cuhk.edu.hk/medint/ovs/dovs)

Media enquiries: Ms Jojo Poon (Tel: 2762-3157)

Public enquiry hotline: Ms Mandy Ng (Tel: 2762-3046)



致新聞編輯  
請即發放

### 中大研究率先發現正常眼壓性青光眼與隱匿性腦梗死的關係

據估計，在 2010 年，全世界將會有超過 6,000 萬名人士患有青光眼。其中，超過 1,500 萬宗個案發生在中國，即平均每 38 名 40 歲以上的人士中就會有 1 名青光眼患者。青光眼是本港的頭號致盲因素，平均每 4 宗永久失明的個案中，便有 1 宗由青光眼引致。一直以來，青光眼被界定是因眼壓升高而導致視神經損害。患者因視野收窄及視力退化，最終導致失明。

香港中文大學（中大）眼科及視覺科學學系譚智勇教授表示：「目前，醫學界均意識到一個重要的事實，就是多達 50% 的青光眼患者的眼壓是屬於『正常』甚至是較低的範圍。眼壓升高是青光眼的一個危險因素，但並非唯一致病因素。高眼壓不再是青光眼定義的一部分。不過，除眼壓高之外，導致青光眼的其他因素尚未明確。」

中大眼科及視覺科學學系副教授梁啟信醫生表示：「自從有了先進的影像診斷工具，我們可以為更多早期青光眼患者作出診斷，及早發現能達致更好的治療效果。」他補充，現時多種新的檢查技術，如 OCT（光學相干斷層掃描儀），可以檢測到青光眼患者的眼部在出現功能性缺陷前的結構性改變。

中大眼科及視覺科學系系主任林順潮教授指出：「治療青光眼的目標眼壓度數徹底改變了青光眼的治療概念。過往，治療青光眼的目標是將眼壓降至『正常』範圍（6-21 mmHg）。很多患者雖然眼壓控制在『正常』範圍之內，但其視功能仍然繼續惡化，這說明所謂的『正常』眼壓並不一定安全及正常。如今，治療眼壓的目標度數則根據每位患者的不同情況而決定，有些患者的目標眼壓度數甚至低於 10mmHg。目標眼壓度數取決於多種因素，如歲數、青光眼類型、嚴重程度、惡化速度以及其他並存的危險因素。」

「在一個對象為 286 名正常眼壓性青光眼患者、為期 3 年的前瞻性研究中，我們發現患有隱匿性腦梗塞患者的青光眼病情比沒有隱匿性腦梗塞的正常眼壓性青光眼患者嚴重 61%。」研究的首席研究員、中大眼科及視覺科學學系名譽臨床助理教授及香港眼科醫院副顧問醫生梁裕龍醫生說：「我們的研究與越來越多的證據一致：即正常眼壓性青光眼與許多血管因素存在相關性。這個研究為推翻『青光眼僅源於高眼壓』的舊觀念提供了更多的證據。」

此項研究結果已於 2009 年 7 月在美國眼科學會的官方雜誌 *Ophthalmology* 刊登。其後，美國眼科學會更引用此項研究結果，掀起全球性討論。美國眼科學會是國際上公認的權威眼科學術團體。

備註：由中大醫學院眼科及視覺科學學系林順潮教授所製作有關青光眼的手術視像，展示在青光眼常規小梁切除術失敗後運用「針刺」分離濾過泡的技巧，分別在以下兩項國際手術視像比賽獲獎：

1. 獲 2009 年 4 月 3-8 日於美國舊金山舉辦的美國白內障及屈光手術醫學會年會「青光眼手術組」冠軍；
2. 獲 2009 年 7 月 8-11 日於美國波士頓舉辦的第三屆世界青光眼學術大會 Film Festival 冠軍。

視像長約 8 分鐘，載於中大醫學院眼科及視覺科學學系網址：  
[www.cuhk.edu.hk/medint/ovs/dovs](http://www.cuhk.edu.hk/medint/ovs/dovs)

二零零九年七月二十八日

---

傳媒查詢：中大眼科及視覺科學學系潘鳳梅小姐（電話：2762-3157）

公眾人士查詢熱線：吳佩霞小姐（電話：2762-3046）