

認識青光眼

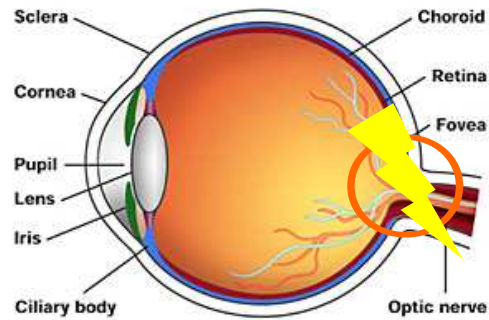
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什麼是青光眼？



青光眼

- 視神經漸進性萎縮死亡的疾病
- 大部份是眼壓過高引起
- 少部分眼壓正常也會引起

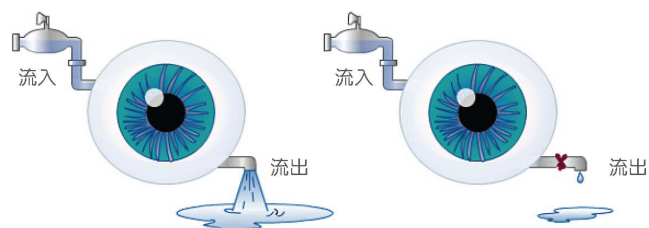


眼壓

- 維持眼球型狀的必需壓力
 - ≤ 21 mmHg
- 眼壓高
 - 眼球內房水代謝不平衡

正常情況

青光眼患者



青光眼的可怕

- 造成失明排行榜的第二名
- 疾病初期症狀輕微不明顯
- 大多數人發現視覺不佳，神經已受損超過40%
- 喪失的視力，即使治療仍無法復原
- 台灣仍有高達25萬潛藏病人

為什麼叫青光眼？



末期青光眼



青光眼種類

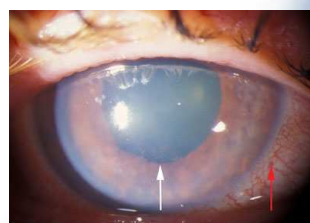
- 發生原因
 - 原發型
 - 次發型
- 發生年紀
 - 先天型
 - 幼年型
 - 青少年型
 - 成人型
- 房角型態
 - 開放型
 - 閉鎖型
- 眼壓高低
 - 高眼壓
 - 正常眼壓

青光眼危險因子

- 眼壓較高
- 年齡超過40歲
- 家族史
- 患有深度近視
- 需定期或長期使用類固醇
- 患有糖尿病或高血壓
- 眼睛曾受過傷害
- 亞洲人較易有慢性隅角閉鎖性青光眼，非洲裔則以隅角開放性青光眼較多

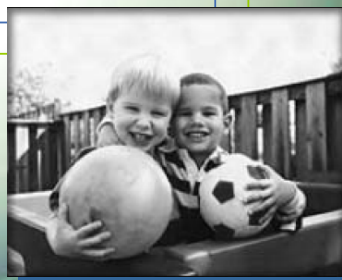
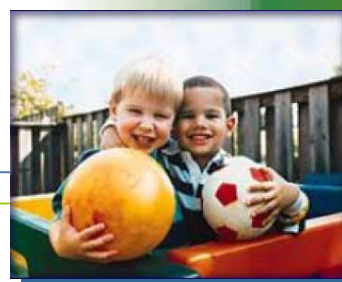
青光眼症狀

- 青光眼初期，通常沒有顯著的症狀
- 在光源周圍看見光暈
- 隧道型視覺（視野變窄）
- 眼壓高
 - 紅眼
 - 眼睛看起來混濁
 - 噁心或嘔吐
 - 眼睛疼痛



提早發現 及時治療

人生才是彩色的



青光眼診斷檢查

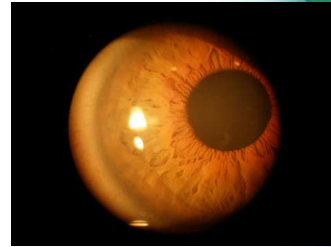
眼壓檢查

- 種類
 - 氣動式
 - 接觸式
- 正常值
 - 21mmHg以下



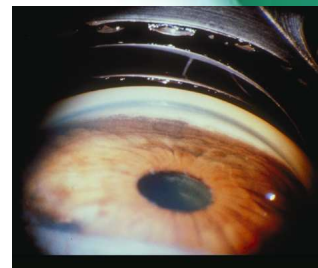
裂隙燈檢查

- 檢查眼球各種結構
- 判斷青光眼原因
- 排除其他疾病



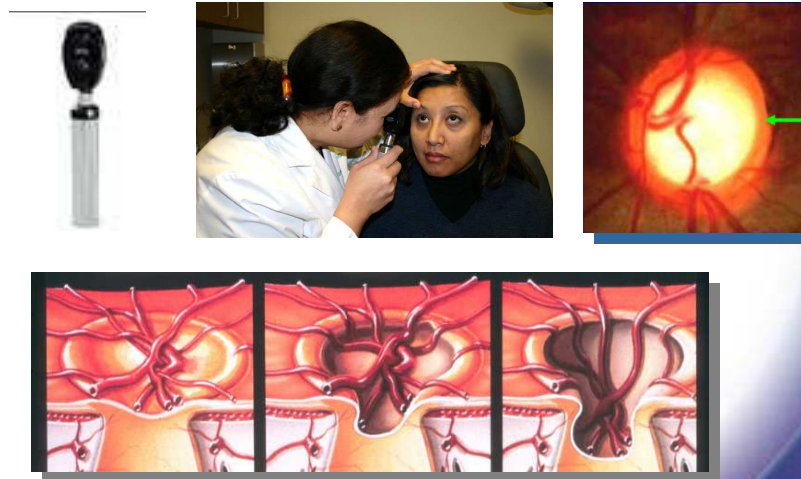
隅角鏡檢查

- 判定隅角結構
 - 閉鎖型
 - 開放型
- 排除或診斷青光眼原因
 - 色素性青光眼



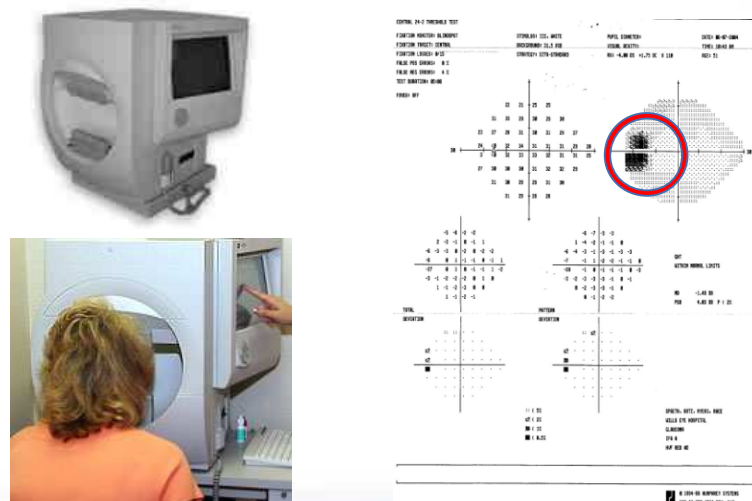
眼底檢查

- 判定視神經頭受傷程度
 - 青光眼愈嚴重，視神經凹陷愈大



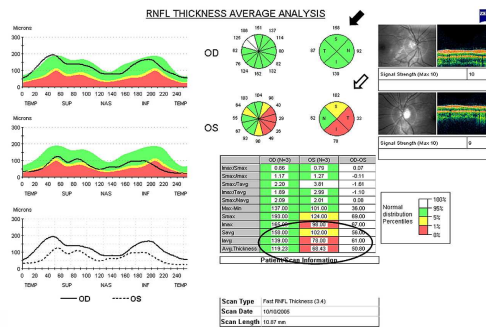
視野檢查

- 評估眼球功能上受損程度
 - 愈黑表示愈差



視神經眼底斷層檢查

- 判定視神經纖維層厚度
- 愈薄表示愈差



青光眼治療

- 藥物治療
- 雷射治療
- 手術治療



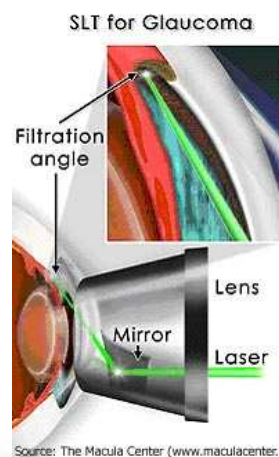
藥物治療

- 注射藥劑
 - 高張溶液，如甘露醇(Mannitol)
- 口服藥劑
 - 碳酸水解酶抑制劑，如丹木斯(Diamox)
- 局部眼用藥劑
 - 前列素類藥物，如舒而坦(Xalatan)
 - 擬交感藥物協同劑或抑制劑，如艾弗目(Alphagan-P)
 - 碳酸水解酶抑制劑，如愛舒壓(Azopt)
 - 複方藥物製劑，如Duotrav



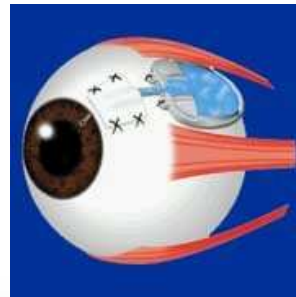
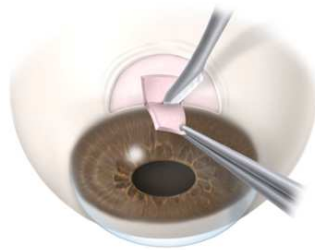
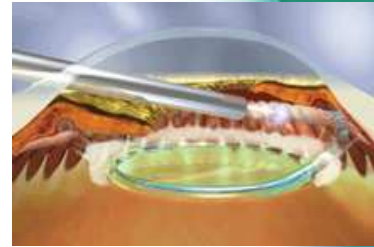
雷射治療

- 雷射虹膜切開 (iridotomy)
 - 用於隅角閉鎖性青光眼
- 雷射虹膜重塑術 (iridoplasty)



手術治療

- 小樑網切除手術
- 濾過管植入手術
- 內視鏡雷射燒灼術



青光眼手術

- 國內青光眼手術首屈一指的醫院
— 三軍總醫院



Intermediate outcomes of Ahmed glaucoma valve surgery in Asian patients with intractable glaucoma

M-C Tai, J-H Cheng, J-T Chen, C-M Liang and D-W Lu

CLINICAL STUDY

Abstract

Objective To evaluate the efficacy and safety of Ahmed glaucoma valve (AGV) implantation in Asian patients with refractory glaucoma. **Methods** The study was a retrospective interventional case series conducted at a single institution between January 2004 and January 2006. The study population included 91 patients (91 eyes). **Results** A total of 70 patients were successfully treated (74.5%). Postoperatively, the median intraocular pressure declined significantly to 13 mm Hg (interquartile range: 10–20 mm Hg) on day 1 ($P < 0.001$) and 17 mm Hg (interquartile range: 12–19 mm Hg) at the last follow-up examination ($P < 0.001$). The cumulative probability of success according to Kaplan-Meier life-table analysis was 74% at 12 months and 43% at 2 years. Hazard of failure increased slightly with age. The 100 eyes confidence interval (CI) = 1.08–1.05, $P = 0.046$. The most common complication was hyphaema at 12.7%. There were no serious complications involving loss of visual acuity or sight. **Conclusions** AGV implantation is an acceptable treatment for refractory glaucoma in high-risk patients with few additional options. *Eur J Ophthalmol*, 000:000, doi:10.1008/eye.2009.181

Keywords: Ahmed glaucoma valve surgery; refractory glaucoma; AGV implantation; glaucoma drainage devices; glaucoma surgery

Introduction

Implantation of glaucoma drainage devices (GDDs) has assumed an important role in the surgical treatment of complicated and refractory

glaucoma. These devices can be used as the primary surgical modality as well as a secondary procedure for those patients treated with earlier surgery, such as trabeculectomy with or without antimetabolite therapy.^{1,2} GDDs, including the Ahmed glaucoma valve (AGV), facilitate aqueous drainage through a tube inserted into the anterior or posterior chamber connected to a posterior plate sutured into the sclera.³ The device may be valved or unvalved and assist passive diffusion of aqueous humour from the anterior chamber. The AGV has a 185-mm² polypropylene plate and a Venturi-type unidirectional valve consisting of a folded silicone elastomer membrane with the free edge forming a one-way outlet designed to open at a pressure of 6 mm Hg. A valved GDD, such as the AGV, minimizes the incidence of postoperative hypotony.⁴ Initial clinical experience found a reduced rate of postoperative hypotony with valved GDDs,^{5,6} but long-term studies on non-valved GDDs indicate better final outcomes in reduced intraocular pressure (IOP).⁷

Thus far, no discrepancies have been observed in outcomes for GDD implants in Asian versus non-Asian eyes, although Asians have been observed to have more severe tissue reactions.^{8,9} The purpose of this study was to evaluate the clinical experience of using AGV in Asian patients with intractable glaucoma. Differences in pre- and postoperative intraocular pressure, risks for failure, and surgical complications up to 2 years after surgery were investigated.

Materials and methods

We reviewed the medical records of patients treated with AGV implantation for intractable

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自我檢測表

- 年齡在40歲以上
- 有青光眼家族病史者
- 夜間視力變差、夜間看燈光會出現虹暈現象
- 沒有明顯原因，但視力短期內越變越糟
- 有偏頭痛、手腳冰冷且血壓偏低者
- 本身是新陳代謝症候群的人(高血壓、糖尿病、高血脂)
- 高度近視患者(近視度數600度以上)
- 遠視眼患者合併白內障
- 經常使用類固醇或精神科用藥的病患
- 有眼球外傷、虹彩炎、葡萄膜炎、腫瘤或眼球內出血病史者

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