出國報告（出國類別：開會）

2022 年德國漢堡歐洲視網膜專家會議

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派赴國家：德國
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摘要

今年一年一度的歐洲視網膜專家會議，視網膜相關的重要議題是蠻全面的，可以說要在短短的四天把視網膜所有議題溫故知新一番，如同以往的會議，同時間會有很多會議室進行不同議題的探討，如何取捨也是一門學問，就已知的學問進行回顧的討論還是占大多數，創新的醫療討論主要是針對視網膜手術中鞏膜扣壓術的部分有新突破，但是新技術目前還不到可取代現行的手術方式的程度，還有就是研究將藥物或是基因治療以不同的途徑送至病灶區的討論。另外，台灣第一次可以在各個國家為特色的小型研討會有自己的 section 裡面的近視及近視引起的黃斑部手術議題深入淺出，收穫滿滿。

關鍵字

視網膜，視網膜手術，鞏膜扣壓術，黃斑部手術

目次

一、目的

參加今年的歐洲視網膜專家會議，其實相當於世界視網膜專家會議，參與的國家很多，裡面有關視網膜的議題包括疾病本身，手術及治療方式，是全方面的溫故知新，期待能有所收穫。

二、過程

9月1日

會議第一天,戴著口罩到會場報到（圖一）,領取名牌後,先到E-poster展示區，展示區有兩排高腳平台,每排平台擺放9台電腦，提供對E-poster有興趣的人觀看內容,先檢查自己的 E-poster（圖二，三和四）於展示時是否流暢且完整無誤,E-poster 共分成11個sections (AMD, Diabetes and vascular diseases, Inherited retinal diseases, Myopia, Tumours, Vitreoretinal surgery, Central serous chorioretinopathy, Imaging, Miscellaneous, Pediatrics, Uveitis)。

今年所準備 E-poster的題目為針對裂孔性視網膜剝離合併黃斑裂孔的病人使用 inverted ILM的術式的手術結果,是放在 vitreoretinal surgery section 中的編號8377，主要的結論是使用 inverted ILM的術式可以達到黃斑部裂孔閉合及視網膜回貼的比例,相較於傳統的不撕除 ILM 者比較高,但是和撕除 ILM者的術後結果一樣好。

閱讀所有E-poster的內容，其中比較有趣的主題包括optic disc melanocytoma 合併黃斑裂孔的病例報告，還有以復發的paraneoplastic cloudy

vitelliform submaculopathy 為 primary central nervous system lymphoma 第一表徵的病例報告。

9 月 2 日

會議第二天, Dr. Dinah Zur 的講題為 Evolving Management in Diabetic Macula Edema, 其中有提到臨床上糖尿病視網膜病變合併黃斑水腫的病人接受許多次 IVI of anti-VEGF, 但是仍有黃斑水腫或是黃斑下積水, 需要從斷層掃描去看是否有 inflammation 的 biomarker, 考慮改用 Dexamethasone implant, 這些 biomarkers 可稱為 DRIL (Disorganization of Retinal Inner Layers), 包括 hyperreflective foci, cyst size, subretinal fluid, vitreoretinal interface, cyst location, IS/OS integrity。一個有趣的 section 是有關 suprachoroidal space 的手術方式、藥物注射及基因療法; 其中手術方式就是針對單一視網膜裂孔及局部視網膜剝離, 可做 suprachoroidal space 植入 hydrogel 的物質形成 suprachoroidal buckling; suprachoroidal drug delivery 有 transcleral injection approach, direct catheterization (把藥借 catheter 從 suprachoroidal space 送到 vitreous cavity 達成治療或 posterior pole lesion 的位置達成基因治療)。另一個關於矽油的主題, 有討論到如何處理 silicone oil complication, 其併發症包括 epiretinal membrane (ERM), epiretinal proliferation (ERP); 另外矽油也可能產生 emulsification, 而導致眼壓高、角膜水腫或白內障形成; 如果矽油已經 emulsified, 在移除時則需反覆 FGE 多次, 盡量將矽油小油滴清乾淨。關於 proliferative

vitreoretinopathy (PVR)的題目，目前如果遇到 PVR combined recurrent RD, 還是以 retinectomy 來處理，需要注意的事項包括 complete vitrectomy, use of Triamcinolone, anterior vitreous dissection, peeling of all membranes, 使用重水做 PFCL test 來決定是否做 retinectomy 及做的範圍是否足夠讓網膜回貼，做 retinectomy 時要用 diathermy 把邊緣血管和 vitreous base 的後緣電燒並清乾淨。

9 月 3 日

會議第三天,以各個國家為特色的小型研討會，每個國家關心及討論的視網膜主題不同，今年第一次有 Taiwan section，第一個上台的講者是高長的吳佩昌主任,他的專長是近視控制及視網膜手術,演講主題為近視在台灣的趨勢，目前 18 歲有近視的比例為 87.2%，高度近視 (<-6.0 D)的比例為 35.7%，比例算是很高的，控制近視的的方式包括低濃度的 Atropine 及足夠的戶外時間。第二位上台的講者為北榮部主任陳世真，專長視網膜手術,演講主題為小孩的裂孔性視網膜剝離,占所有視網膜剝離的 2~6%,在亞洲比例較高,主要是近視比例高,high myopia Vs. extremely high myopia (-6.0 D ~ -10.0 D)發生視網膜剝離，二者均是 80~90%是做鞏膜扣壓術使其貼附回去,非計畫的玻璃體切除術是 1% Vs. 20%，成功率為 92% Vs. 53%，最終視力大於等於 20/200 為 83% Vs. 47%。第三位上台的講者為台大楊中美主任，專長視網膜手術，演講主題為避免因近視牽引性黃斑部做完玻璃體切除術後引發病變黃斑裂孔產生。第四位上台的講者為賴佐廷醫師，是台大視網膜醫師，演講內容中有提到 High myopia 的 foveoschisis

有四種型式，其中 type II 和 type III foveoschisis 占 > 50%，type II schisis 先形成內層的 Lamellar Macular hole (MH),再變成 Full thickness MH (FTMH)，而 type III 是 schisis combined with retinal detachment (RD)直接形成 FTMH，或是間接先形成外層 Lamellar MH，再演變成 FTMH；針對 myopic tractional maculopathy (MTM) 的病人做完手術，也可能會產生 FTMH 的併發症，其中術前有 IS/OS 缺損者，預期會有續發性的 FTMH，即使 ILM 完全移除也會有術中結構的改變等併發症包括視網膜變薄，內層是網膜不連續，視網膜分裂（schisis）增加或視網膜剝離 (RD)；而 Parolini et al 提出 MTM staging: Type I with ERM, Type II with Schisis, Type III with localized RD。第五位醫師是日本醫師 Kenji Yamashiro，主題是近視的新生血管(CNV)，其中提到目前的治療以 anti-VEGF drugs，但是也無法阻止 chorioretinal atrophy (CRA)，而 CCDC102B 和 CRA 的形成有關，所以它可能是未來治療 myopic CNV 和 CRA 的關鍵。

9 月 4 日

會議第四天,現場的人數驟減，主要是議題比較少見以及眼內腫瘤相關的部分，包括 masquerading syndrome，uveal melanoma 及 high myopia，其中 masquerading syndrome 提到比較常見的 lymphatic lesion on the ocular surface，以 Salmon patch 表現為主，病灶可以是 Ocular adnexal lymphoma 或 benign reactive (lymphoid hyperplasia)等，處理以病灶切除送病理切片，同時做免疫染色，確定診斷後再看是否做全身化療或免疫療法。另一個也是比較

困難的議題是 uveal melanoma, 它是最常見的眼內 malignancy, 常好發於中年人及 Caucasians, 其表徵特色為 (MOLES), M 為 mushroom shape, O 為 orange pigment, L 為 Large size, S 為 subretinal fluid, 每個項目為(0-2 score: Absent, indeterminate, present), lesion 的大小以視神經盤做基準再加上厚度也會給予一個分數, 所有分數加總大於 +3 score 被指為 probable melanoma 及判定是否需要緊急轉診, 治療包括 brachytherapy, teletherapy (protons beam irradiation),如果 iridociliary tumor 包含 >3 clock hours 或 anterior choroidal tumor <15 mm in diameter 亦可以從外面 sclera 做 excision。

三、心得及建議

很榮幸也很感謝高雄榮總院方能夠讓我有這個機會去參加 2022 年的歐洲視網膜專家會議。在精進自己臨床醫療能力的同時，確實也非常需要有這種觀摩進修的機會，以便能在醫療知識與技術以飛快的速度與時俱進的同時，維持該有的競爭力。

由於這次的會議是全世界實質解封之後該會議第一次舉辦實體會議，為了因應大量參與實體會議的人潮, 主辦單位也做了許多措施以避免人與人之間近距離的接觸。包括報到時直接使用機器感應參加者的 QR code 做出名牌以減少前台工作人員和參加人士的互動,以及使用 App 的方式去查看會議議題的時間和地點以做到無紙化, 同時現場也沒有發放紀念品， 這些措施減少了許多不必要的浪費和負擔。

在 poster 的發表方面，以往 E-poster 的呈現是作者需要站在電腦前說明自

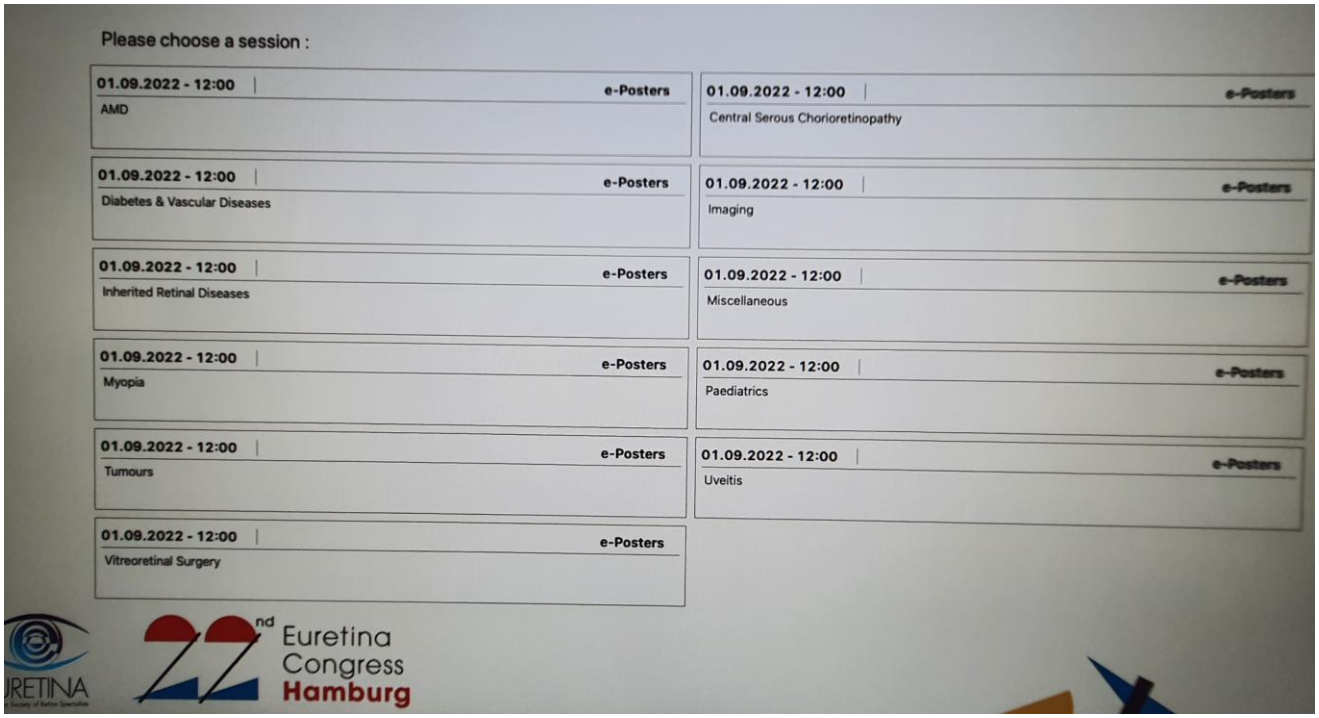
己 ppt 的內容，但是今年則是只提供電腦區給想閱讀Ｅ-poster 內容的人去參看,雖然無法跟人討論互動，但是安靜閱讀或翻閱查找資料也能有不錯的收穫。這些可以讓我們醫院在往後舉辦相關會議時借鏡和參考。

今年台灣第一次可以在以各個國家為特色的小型研討會有自己的 section。本來以為很少外國視網膜醫師會來台灣的 section 關心視網膜議題，但是實際上當天有蠻多外國視網膜醫師參與，可見在近視相關的議題包括 pediatric RRD, myopic tractional maculopathy, foveoschisis 等,台灣的軟實力也已經受到外國視網膜專家認同，實在是意想不到的收穫。

四、附錄

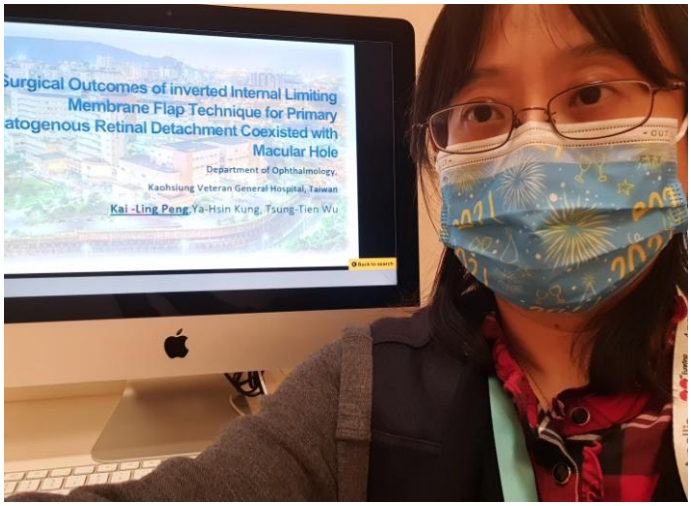
圖一 2022/09/01 到會場

圖二 E-poster 所分的 sections



圖三　這次參加的 ppt，Topic 是屬於 vitreoretinal surgery section

圖四　這次參加 ppt 首頁



由於無紙本議程，所以把網址節錄於下：

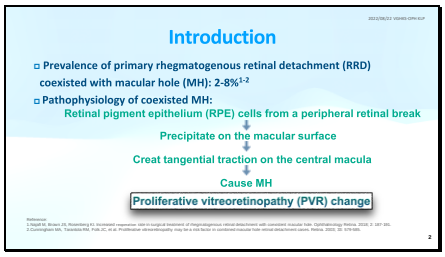
https://euretina.org/hamburg2022/hamburg-programme-overview/

簡報內容如下：

投影片 1

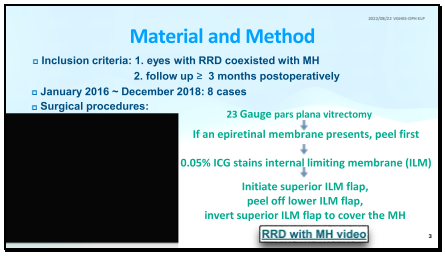
Ladies and Gentleman, welcome to listen and read our study related to use of internal limiting membrane flap for treatment of primary rhegmatogenous retinal detachment coexisted with macular hole. This study is from Kaohsiung veteran General hospital in Taiwan.

投影片 2



The prevalence of primary rhegmatogenous retinal detachment coexisted with macular hole has been reported approximately 2-8% by previous studies. Its pathophysiology begin with retinal pigment epithelium cells which came from a peripheral retinal break in patients with RRD. Then these RPE cells precipitate on the macular surface to become an epiretinal membrane, which may create tangential traction on central macula. And here it is, a macular hole presented. This whole process is proliferative vitreoreitnopathy change in patients with RRD.

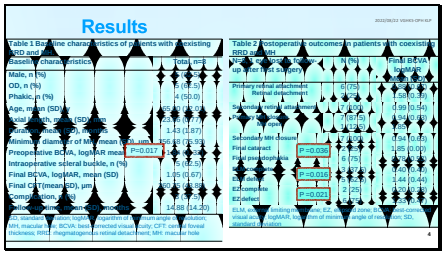
投影片 3



The inclusion criteria are the eyes with RRD with MH from January 2016 ~ December 2018 and the patients followed up more than 3 months postopratively.

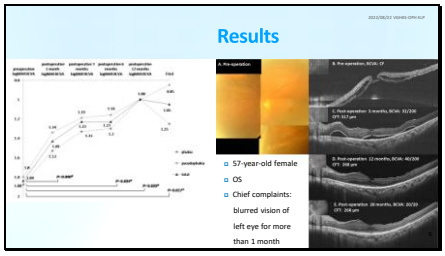
There were total 8 cases. The surgical procedures include 23 gauge pars plan vitrectomy, peeling the epiretinal membrane first if it presents and staining ILM by 0.05% ICG for brilliant Blue not available in Taiwan at that time. From this video, we could see clearly the whole process of inverted ILM flap technique: initiate superior ILM flap, peel off lower ILN flap and then invert superior ILM flap to cover the MH.

投影片 4



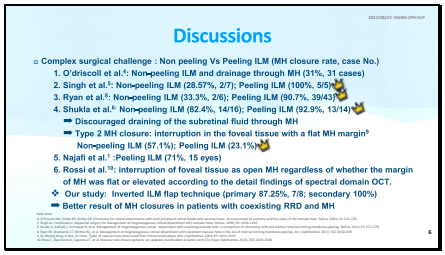
Among these eight eyes, the mean patient age was 65.00 years; and 5 patients were male. The mean AL was 23.66 mm. The mean duration from symptoms to surgery was more than one months. The mean minimal diameter of MH was 356.68 ?gm. There were 5 cases underwent simultaneously scleral buckle. The only item with significant differences from final vision is preoperative vision which means the vision improved after surgery. One patient lost to follow up after first surgery. We could see the primary retinal attachment rate is 75%, secondary retinal attachemtn rate is100% while primary MH closure rate is 87% and secondary MH closure is 100%, ELM complete rate is 37.5%, EZ complete rate is 25%. Final lens status and foveal restoration including ELM and EZ influenced the final vision significantly.

投影片 5



At first, there were 4 eyes with pseudophakia represented by diamond shape. We could see the vision in patient with pseudophakia continuously improved from preoperative vision of 1.8 logMAR to final vision of 0.85 logMAR. The mean vision also improved from preoperative one of 1.84 logMAR to postoperative 12 months 1.0 logMAR with significance. There showed an eye with RRD coexisted with MH whose chief complants were blurred vision of left eye for more than 1 month. At first, she presented with CF in her left eye. Her vision improved to 32/200 at postoperative 1 month with shallow subretinal fluid at fovea by OCT. Two years later, her vision improved to 20/20 with complete ELM and EZ.

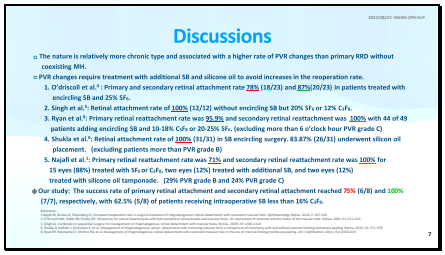
投影片 6



We focused on three topics in discussions. First topic, for RRD coexisted with MH, which one would get higher macular hole closure rate , ILM peeling or non-peeling?

The first study which published in Retina 2001 showed that they performed 31 cases by non-peeling ILM and drainage through MH. Their MH closure rate is 31%. The other 3 studies published in 2009, 2011 and 2013. They compared Non-peeling ILM with Peeling ILM for RRD coexisted with MH. And the results of these three studies showed higher MH closure rate in the peeling-ILM group. However, in the study of Shukla, they discouraged?K?K. They also agreed that type 2 MH closure is true MH closure. However, In Rossi??s study, they disagreed according to the detail findings of spectral domain OCT. In our study, inverted ILM flap technique could get 87.25% of MH closure rate

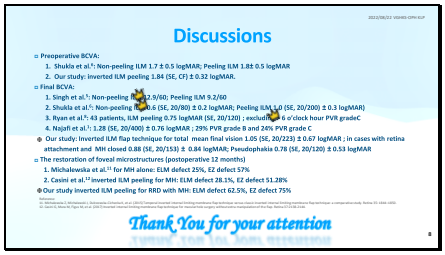
投影片 7



The Second topic is For this complex type of retinal detachment, which one would let higher retinal attachment rate, additional scleral buckle or silicon oil

In these first three studies including o??driscoll. Singh and Ryan, they used different concentration of long-acting gas including SF_6 or C_3F_8 with or without sclera buckle. The retinal attachment rate approached to 78% to 100%. In the Shukla study, more cases used silicon oil placement and they got 100% retinal attachment rate. In the Najafi study, just few patients used scleral buckle and silicone oil tamponade and they also got high retinal attachment rate. In our study, just recurrent retinal detachment case used silicone oil placement. And we still got not inferior results to previous studies.

投影片 8



Third, which one could get best visual outcome, ILM peeling or non-peeling? In the studies of Singh and Shukla, the final vision in the non-peeling ILM group showed better results than that in the peeling ILM group. The final vision showed better in Ryan study than Najafi study

In our study, we used inverted ILM flap technique. The mean final vision was not inferior to those in the study used ILM peeling.

About foveal restoration, previous studies just focused on inverted ILM flap technique for macular hole without retinal detachment. The results of ILM defect and EZ defect showed 25% and more than 50% respectively. However, for the cases of RRD with MH in our study, the rate of ELM defect and EZ defect revealed higher than that of the cases of only MH.