

出國報告(出國類別：開會)

美國美容外科醫學會 2009 年年會  
暨學術研討會

服務機關：國防醫學院三軍總醫院

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派赴國家：美國

報告日期：98 年 6 月 9 日

出國時間：98 年 5 月 1 日至 5 月 8 日

## **摘要**

本次出國參加美國美容外科醫學會 2009 年年會暨學術研討會於美國內華達州拉斯維加斯市舉行。會中參與大會議程對於學會的用心安排深感佩服，尤其是對熱門議題的設定與新概念的科學辯論的拿捏，更可對吾等日後於國內會議內容討論方向與活動設計有所助益。希望能提升國內相關議題的研究深度與國際接軌。另外學術研討會的部分此次更有美國大師課程系列與進階工作坊訓練，令人目不暇給與耳目一新，對於個人於醫療技術上的提升與醫學研究品質的進步有實質而且有莫大的幫助。假以時日，必能在國內發揮一定的影響力。所以經過這次的學術交流，個人極力推薦同僚或後進有機會應把握去參加美國美容外科醫學會所舉辦的會議。

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## 本文

### 目的

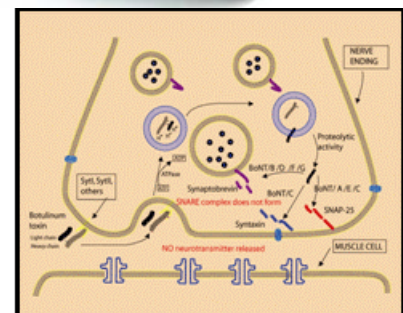
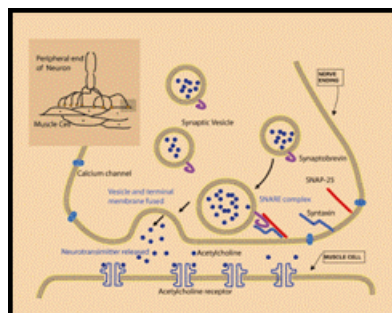
本次出國參加美國美容外科醫學會 2009 年年會暨學術研討會目的在於除投稿論文海報外，更在於了解熱門議題的方向與相關議題的研究。並且參加大師課程系列與進階工作坊訓練，期對於個人於醫療技術上的提升與醫學研究品質的進步有實質而且有莫大的幫助。

### 過程

2009 年 05 月 01 日晚上搭乘長榮航空班機經舊金山轉機到美國拉斯維加斯市，於 2009 年 05 月 02 日抵達並入住下榻旅館。05 月 03 日於大會報到並參加熱門議題的全天研討會，05 月 04-05 日參加美國美容外科醫學年會大會議程，05 月 06 日上午參加大會議程，下午參加手術訓練課程。05 月 07 日搭機經洛杉磯離開美國，於 05 月 08 日回到台灣台北。

### 心得

此次參加美國美容外科醫學會2009年年會暨學術研討會收穫良多。會中我們見到許多新產品的問市，諸如可預見的將來肉毒桿菌素的市場將會越來越激烈，因為越來越多的藥廠投入生產製造的行列，例如德國默氏藥廠的Xeomin，Mentor公司的Purtox，還有香港商HughSourcee公司，由大陸蘭州製藥廠所生產，他們在1993年即取得上市許可，目前已於亞洲(韓國、泰國、印度)、拉丁美洲(巴西、哥倫比亞、智利)等等三十多國上市，內容物為Clostridium Botulinum Toxin Type A (100units/vial or 50units/vial)，用於肌肉內注射治療斜頸、斜眼、動態性皺紋等等，其他也有人用於手腳汗症之治療、攝護腺之肥大、還有治療偏頭痛等等，2-3天才會發揮藥效，約1星期達到藥效高峰，可以持續3-6個月的有效期，另外韓國Medy-Tox上市公司也出產 botulinum toxin type A藥品同樣每瓶100U。他們的作用原理都是作用再肉毒桿菌注入肌肉後，就會與肌肉中眾多微小神經纖維末梢相結合，並且阻斷神經末梢再吸收神經傳導物質 Acetylcholine (乙醯膽鹼)，使得神經末梢的乙醯膽鹼耗盡而無法傳遞訊息，達到肌肉去神經化作用，使神經運動傳導至肌肉，但肌肉卻不做過度的收縮。



另外疤痕治療也有新突破，Juvista是一種Transforming Growth Factor  $\beta 3$  (TGF  $\beta 3$ ) 的治療藥物，由Renovo公司所生產，其成分來自於鱷胚胎之一種蛋白質，聲稱可在剛手術完，或已形成之疤痕，只要兩次注射便可減少疤痕，其研發構想是源自胎兒在傷口生長修復時，幾乎沒有疤痕的產生，而且傷口的TGF  $\beta 3$ 濃度很高，而在成人傷口當中TGF  $\beta 3$ 濃度很低，當然對keloid治療也有效。現由歐洲先上市。



最有趣的藥是Latisse眼睫毛生長膏，內含Bimatoprost是一種prostaglandin analog 濃度0.03%。原本是當做治療青光眼的藥品(Lumigan)使用，Lumigan的使用者發現它有促進睫毛生長的副作用，愛力根公司因此開發出新產品Latisse，用來治療睫毛稀疏的症狀，目前FDA是核准它的同成份同濃度但不同用途的藥品(Latisse)當作治療睫毛稀少的使用，其他同類型的前列腺素衍生物藥物如Latanoprost (Xalatan)、Isopropyl unoprostone(Rescula)及Travoprost (Travatan)是否也可以當作這樣的用途使用則仍需相關報告確認，使用16周後可使眼睫毛變濃又長又密。



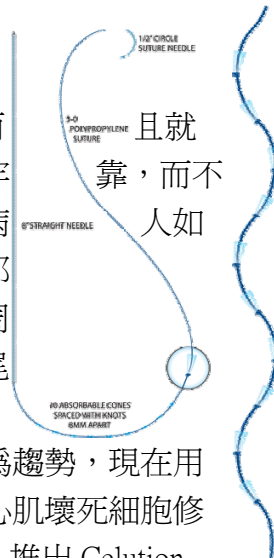
至於外科手術用的醫療器材部分。未來可抗生物薄膜Biofilm的人工植入物越來越多。因為細菌特別喜歡生物膜，李斯特菌、沙門氏菌和弧形菌，有很好的適應能力，使得消滅它們極為困難。這些有機體藉由居住在活著的或死亡的細菌和聚合物組成的生物膜形成 (biofilm formation)，它們會變成具有比自身生存所需強約10 0 00倍的對抗菌劑 (antimicrobial agent) 的抵抗力。研究發現，生物膜是非常複雜的，幾乎像是一個具有洞穴(tunnels) 和排泄孔 (excretory pore) 的有機體，像是動物中基本的循環系統。萬一植入物像鹽水袋義乳或人工鼻骨等，因感染產生Biofilm 病人就必須將 prothesis 取出才有辦法將感染控制住。



而Inorb皮膚皮下自動縫合器，更是外科醫師節省開刀時間的好幫手。它不需要拔釘子或拆線，它是由Poly-Lactic Acid/Poly-Glycolic Acid (PLA/PGA) co-polymer 所構成的可吸收的釘子，一隻 skin stable有25根釘子，可縫18公分長，所以在經濟學上的統計，在腹部整形手術上平均可以縮減手術時間30分鐘，而乳房手術方面可以縮減20分鐘的手術刀房時間。

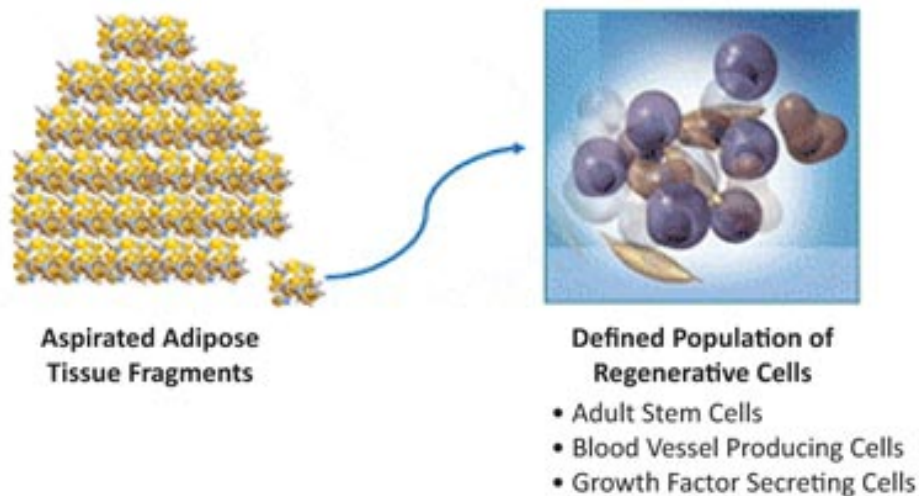


另外Silhouette suture拉皮懸吊線是新的發明，它是由 3-0 polypropylene線打結，並加上可吸收的倒杯子狀的軟支撐物而卡在線的結上。它的特點在於抓取軟組織的面積更大而且更牢會像以前傳統的羽毛線容易鬆脫移位，在臉皮不是很鬆的病果想回春但不想做大手術的話，可以考慮用懸吊的方式來局部改善。手術方法就是把線穿道要懸吊的地方，如眼眶或嘴邊周圍的脂肪纖維層與以懸吊，並向要拉的地方拉起，最後把線尾縫在深部的顳部筋膜區。



且就  
靠，而不  
人如

至於外科手術技術方面，運用自體脂肪幹細胞的治療蔚為趨勢，現在用於自體脂肪移植用於豐胸隆乳，以及慢性傷口修復，甚至於心肌壞死細胞修復等運用，最有名也最積極的莫過於美國上市生技公司 Cytori 推出 Celution system 號稱可以在 2 小時之內分離出人體脂肪幹細胞，目前已於歐洲上市，而美國慢性心臟病治療以及日本脂肪豐胸治療之人體試驗已進入第三期臨床試驗階段。



在以前自體脂肪用於豐胸隆乳的限制在於移植的脂肪純活率過低的問題，

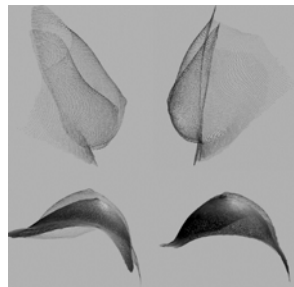


甚至進一步纖維化或鈣化，在現在放射診斷影像學的進步下，對於癌症的鑑別診斷已不是問題，接下來就是如何提高脂肪存活率的問題，Roger Khouri 醫師提到他可以大幅提高脂肪的純活率高達平均 85%，最大的技巧在於他有在脂肪移植之前將乳房的狀況與以處理，例如他運用 Brava 負壓吸引罐將乳房皮膚拉



撐變大長達 10 周以上的時間，也就是在脂肪移植之前就將乳房變大成移植之後的大小，起初當然是因為水腫腫漲為主，在皮膚已經鬆弛，乳房裡面充滿組織液的同時，與以脂肪填充。最大的突破的原因就是他移植的脂肪沒有傳統手術皮膚張力太大的問題，進而增加細胞組織的養分氧氣的灌流量。而且他也發現

Brava 可以讓病人的乳房在不使用手術的狀況下增大 1 至 2 個罩杯，即使在停用負壓吸引裝置後，乳房也不會縮小到原來的大小，而是平均還維持 100 CC 左右

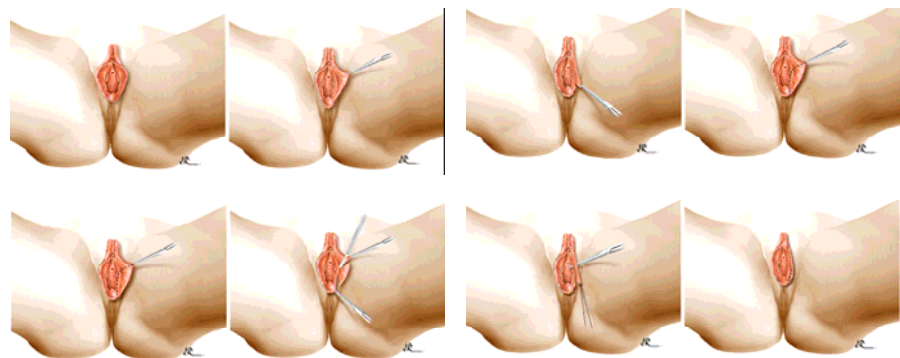


的乳房組織增長，這相當於增加一個罩杯的大小，他的臨床使用經驗對於我們整形外科醫師追求天然自然的組織重建填充，不外乎開啓新的曙光，因為病人可以追求更自然符合人體生理的重建方式，而不用忍受義乳鹽水袋外來異物反應造成攣縮疼痛僵硬甚至破裂等等的困擾。

在這次會中大會也因為陰唇整形手術需求的增加，進而將這議題列為熱門議題，並邀請醫師分

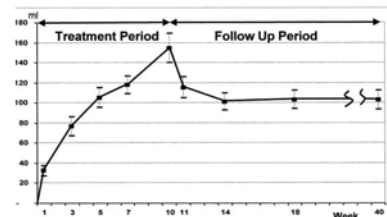
享她的做法與經驗，手術方法不論是 V 字形切縫法、

W shape、central wedge 或 Z-plasty 或是其他的局部皮瓣轉移法，不外乎將

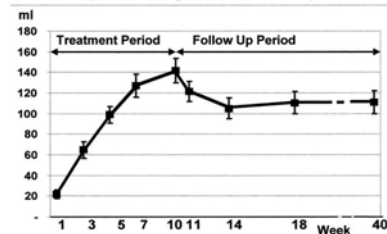


變大鬆馳的小陰唇多的部分予以切除並且縫合回原來小巧的樣子，避免因為運動如騎腳踏車或跑步等活動造成摩擦不舒服，進而因為沒有了陰道口的阻擋，以及美觀上的視覺刺激，將增進生活上的品質與樂趣。

**Breast Volume Increase**  
(Measured by Bead Displacement in ml)



**Breast Volume Increase**  
(Measured by G.D. Device in ml)



### 建議事項

有鑑於醫療器械日新月異以及生物技術進步迅速，不斷的保持時代脈動，跟上知識的進步是很重要的，因此除了加強平日雜誌學術文章的閱讀以外，像這種國際的大型研討會的參與是很重要的。因為它給我們大量的知識累積與創意的啟發。而且能一親大師風采，親自就教，能減少自己許多摸索的時間，也能夠更能增加病人的手術安全性與成功完美度。所以建議像這樣的國際會議應多派人參加，保持我們的研究水準與醫療的品質。





## Saturday, May 2, 2009

<u>Time</u>	<u>Function</u>	<u>Location</u>
6:30 am – 6 pm	Registration Opens	Mandalay Bay Foyer
7:30 am – 5:30 pm	Various Special Seminars	See Ticket
8 am – 5 pm	The Rhinoplasty Society Meeting	Surf AB
12 Noon – 7 pm	Speaker Ready Room	Surf F
3:00 pm – 5:00 pm	ASERF Board of Directors Meeting	Reef D – F
5 pm – 6 pm	Monitor Training	Reef A
5 pm – 6 pm	Distance Learning Committee	Surf D
7 pm – 9 pm	Faculty/Local Host/International Reception (Invitation Only)	Bay View Patio North Convention Center Beach Level



All Events will be held at the Mandalay Bay South Convention Center—  
2nd Floor unless otherwise indicated. See Course Ticket for Optional Course Locations



## Convention Summary

### Sunday, May 3, 2009

<u>Time</u>	<u>Function</u>	<u>Location</u>
6:30 am – 7 pm	Speaker Ready Room	Surf F
6:30 am – 6 pm	Registration Open	Mandalay Bay Foyer
7 am – 8:30 am	Finance & Investment Committee	Reef A
7 am – 6 pm	<b>Various Special Seminars</b>	See Ticket
8 am – 2 pm	<b>R Residents &amp; Fellows Forum</b> <i>Supported by Allergan</i>	Surf BC
8 am – 5:30 pm	Press Office	Breakers Registration North
9 am – 1 pm	ASAPS Board of Directors Meeting	Reef D – F
2 pm – 4 pm	ASJ Editorial Board Meeting	Reef D – F
2 pm – 6:30 pm	<b>Optional Courses-100 &amp; 200 Series</b>	See Ticket
4 pm – 5 pm	Publications Committee	Surf D
5 pm – 6:30 pm	Aesthetic Fellowship Directors Town Hall Forum	Surf E
5:30 pm – 6:30 pm	Electronic Communications Committee	Surf D
6:30 pm – 7:30 pm	Residents & Fellows Forum Reception	Bay View Patio North Convention Center Beach Level
6:30 pm – 10 pm	<b>Corporate Satellite Symposia</b> Allergan Medical Natrele 410 Gel Filled Highly Cohesive Shaped Implants	Mandalay Bay EF
6:30 pm – 10 pm	<b>Corporate Satellite Symposia</b> Sanofi-aventis Non-Surgical Facial Rejuvenation: Advanced Techniques for Volumizing with Dermal Fillers	South Seas ABEGH



## Monday, May 4, 2009

<u>Time</u>	<u>Function</u>	<u>Location</u>
6 am – 7 pm	Speaker Ready Room	Surf F
6:30 am – 7:30 am	Candidate Liaison Committee	Surf D
6:30 am – 7:30 am	Corporate Sponsorship Committee	Reef DF
6:30 am – 5:30 pm	Registration Open	Mandalay Bay Foyer
7:45 am – 12:15 pm	<b>Scientific Session</b>	Mandalay Bay GH
8 am – 5:30 pm	Press Office	Breakers Registration North
8 am – 4:30 pm	<b>Various Optional Courses</b>	See Ticket
9 am – 4:30 pm	Exhibits Open	Shorelines A
10:30 am – 11 am	Coffee Break in the Exhibits	Shorelines A
10:30 am – 11 am	New Members & Leadership Meet & Greet Coffee Break	Surf D
10:30 am – 11 am	Monitor Training	Reef A
10:30 am – 11 am	Residents & Fellows Subcommittee	Surf E
10:30 am – 11 am	Research Committee Meeting	Surf A
12:15 pm – 1:45 pm	Lunch in the Exhibits	Shorelines A
12:30 pm – 1:45 pm	<b>S14 Research &amp; Innovative Technology Luncheon</b> (Ticket Required)	Mandalay CD
12:30 pm – 1:45 pm	<b>S15 Women Plastic Surgeons' Luncheon</b> (Ticket Required) <i>Supported by Mentor Corporation</i>	Mandalay B
12:30 pm – 1:30 pm	<b>Optional Courses—300 Series</b> <i>Box Lunch provided near course location</i>	See Ticket
1:45 pm – 6 pm	<b>Scientific Session</b>	Mandalay Bay GH
3:30 pm – 4 pm	Coffee Break in the Exhibits	Shorelines A
5:30 pm – 6:30 pm	Corporate Advisory Open Forum	Surf D
6 pm – 7 pm	<b>S16 Cocktails and Complications</b> (Ticket Required)	Mandalay A
7 pm – 9 pm	<b>Welcome Reception</b> <i>Supported by NexTech, Inc.</i>	Mandalay EF



## Convention Summary

### Tuesday, May 5, 2009

<u>Time</u>	<u>Function</u>	<u>Location</u>
6:15 am – 7 pm	Speaker Ready Room	Surf F
6:30 am – 5 pm	Registration Open	Mandalay Bay Foyer
6:45 am – 7:45 am	ABPS MOC Committee	Surf E
6:45 am – 7:45 am	Hot Topics Task Force	Outriggers Boardroom 3rd Floor
7 am – 8 am	Women's Health Advocacy Committee	Reef A
7 am – 8 am	Practice Relations Committee	Surf D
8 am – 12 Noon	Concurrent <b>Scientific Session A</b>	Mandalay GH
8 am – 12 Noon	Concurrent <b>Scientific Session B</b>	Mandalay CD
8 am – 6:30 pm	<b>6th Annual Aesthetic Symposium of the American Society of Plastic Surgical Nurses (ASPSN)</b>	Reef B
8 am – 5:30 pm	Press Office	Breakers Registration North
9 am – 4:30 pm	Exhibits Open	Shorelines A
9 am – 12 Noon	<b>Optional Course</b>	See Ticket
10 am – 10:30 am	Coffee Break in the Exhibits	Shorelines A
10 am – 10:30 am	CME Committee	Reef A
10 am – 10:30 am	Public Education Committee	Surf E
12 Noon – 2 pm	Lunch in the Exhibits	Shorelines A
12 Noon – 2 pm	ASAPS/ASERF Business Luncheon Members Only	Mandalay Bay E
2 pm – 6:30 pm	<b>Optional Courses—400 &amp; 500 Series</b>	(See Ticket)
4 pm – 4:30 pm	Coffee Break in the Exhibits	Shorelines A
4 pm – 4:30 pm	International Committee	Surf E
6:30 pm – 7:30 pm	<b>Women's Martini Hour</b> <i>Supported by Mentor Corporation</i>	Surf D
6:30 pm – 10 pm	<b>Corporate Satellite Symposia</b> <b>Cynosure: Research Advancements in Laser Assisted Body Contouring</b>	Mandalay Bay I
6:30 pm – 10 pm	<b>Medicis—The Art of Injection HA Dermal Fillers</b> <b>Featuring Pearls for Your Practice</b>	Lagoon E & K
6:30 pm – 10 pm	<b>Mentor Surviving and Thriving in Today's Economy</b>	The New Joint at the Hard Rock Hotel & Casino Las Vegas



## Wednesday, May 6, 2009

<u>Time</u>	<u>Function</u>	<u>Location</u>
6:30 am – 5:30 pm	Speaker Ready Room	Surf F
7 am – 5 pm	Registration Open	Mandalay Bay Foyer
7:30 am – 8:30 am	Exhibitor's Breakfast	Shorelines A
7:30 am – 12:30 pm	Concurrent <b>Scientific Session A</b>	Mandalay Bay GH
7:30 am – 12:30 pm	Concurrent <b>Scientific Session B</b>	Mandalay Bay CD
8 am – 5:30 pm	Press Office	Breakers Registration North
9 am – 4:30 pm	Exhibits Open	Shorelines A
9:45 am – 10:30 am	Coffee Break in the Exhibits	Shorelines A
10 am – 10:30 am	Teaching Course Subcommittee	Surf D
12:30 pm – 1:30 pm	<b>S19 Candidate Open Forum</b> <i>All those interested in applying for membership are welcome to attend—box lunch provided</i>	Lagoon D
12:30 pm – 1:30 pm	ASERF New Board Meeting	Reef D-F
12:30 pm – 2 pm	Lunch in the Exhibits	Shorelines A
2 pm – 6:30 pm	<b>Optional Courses—600 &amp; 700 Series</b>	See Ticket
3:30 pm – 4:30 pm	Education Commission & Program Committee	Reef D-F
4 pm – 4:30 pm	Coffee Break in the Exhibits	Shorelines A
6:30 pm – 7 pm	Awards Reception <i>Supported by Mentor Corporation</i>	Surf AB
7 pm – 8 pm	Presidential Reception	Mandalay Bay F
8 pm – Midnight	Presidential Dinner Dance <i>Reserved Seating—Ticket Required</i> <i>Supported by Medicis Aesthetics</i>	Mandalay Bay E



## Convention Summary

### ***Thursday, May 7, 2009***

<u>Time</u>	<u>Function</u>	<u>Location</u>
6:30 am – 3:30 pm	Speaker Ready Room	Surf F
7 am – 12 Noon	Registration Open	Mandalay Bay Foyer
7:30 am – 12:15 pm	<b>Scientific Session</b>	Mandalay Bay GH
8 am – 1 pm	Press Office	Breakers Registration North
9 am – 2 pm	Exhibits Open	Shorelines A
10:45 am – 11:15 am	Coffee Break in the Exhibits	Shorelines A
12 Noon – 1 pm	ASAPS New Board Organizational Meeting	Reef D-F
12:15 – 1:15 pm	Lunch in the Exhibits	Shorelines A
1:15 pm – 3:30 pm	<b>Scientific Session</b>	Mandalay GH



Reminder  
**The Aesthetic Meeting 2010**

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April 22-27, 2010



## Fat Graft To Correct Tear Trough Using Microcannula

### Purpose

A study of 24 tear trough deformities in 12 consecutive women who had volume restoration with autogeneous fat. The study subjects ranged in age from 35 to 54 years old. We selected the patients who are the younger ones - in their 30s to 40s-who just started losing some volume in the tear trough area, and these patients who are not as good a candidate for blepharoplasty, because they're just starting to have some volume loss without severe skin laxity and they may not want surgery yet.

### Methods

Preoperative photography were recorded. Tear trough depth was ranked one through three and skin quality was ranked one through three. They were evaluated for pain, ecchymosis, edema, irregularity and visibility of fat after the procedure, and then at one, two, four and twelve weeks. All of the patients had an infraorbital nerve block. I performs the procedure with a blunt-tipped cannula rather than a needle. which is a 20-gauge (0.9 mm), custom-made stainless steel blunt cannula, and inject medially to laterally from a very deep plane beneath the muscle, to the subcautaneous layer. The tear trough is at or below the rim, so I don't need to inject above the rim or into the globe. In every case the depth and appearance of the tear trough was improved, I use a blunt cannula and do that, the safety factor increases significantly.

### Results

The average amount of fat graft injected was .8 cc medially and .2 laterally for one site. At each follow-up visit we looked at the depth of the tear trough and the estimated percent of correction and morphology. The tear trough deformity was down-staged by one or two categories in every patient after the procedure. There was individual variation; however, the majority still had their full correction at three months. The effect remained stable and persistence of the fat in this location at three months. The majority of patients had no pain. Or those who had pain, they described it as minimal. Five of the patients had ecchymosis. It was usually limited to the injection site, and resolved within seven days. All of the patients had some level of edema. It was most apparent during the first week and gradually resolved over the next week. Irregularities were seen in two of the patients who had very thin skin. This correlates to the quality of the skin and the depth of the tear trough. They were usually minimal and localized. Mostly they resolved in one to three weeks with massage.

### Conclusion

Autogenous fat is a satisfactory alternative for correction of tear trough deformity. For the tear trough volume restoration, the best candidate is a younger person who has thicker skin and minimal to moderate volume loss.

