

Inventor Conference 2018



科妍生物科技股份有限公司
SciVision Biotech Inc.

Dr. Chun Chang Chen
Project Manager | R&D Dept

Disclaimer

This slide contains our business prospect, financial condition and sales prognosis which are derived from our existing internal/external data analysis. The actual result of operations may differ from the expressed or implied in these forward-looking statements due to various reasons, including but not limited to price fluctuation, competition, global economic condition, exchange rate fluctuation, market demand or other risks that beyond our control. The forward-looking statement in this release reflect the current belief of SciVision at this point and SciVision undertakes no obligation to update these statements with new information or future events.

Outline

- 1. Company & Product & Technology Overview**
- 2. Business Operation**

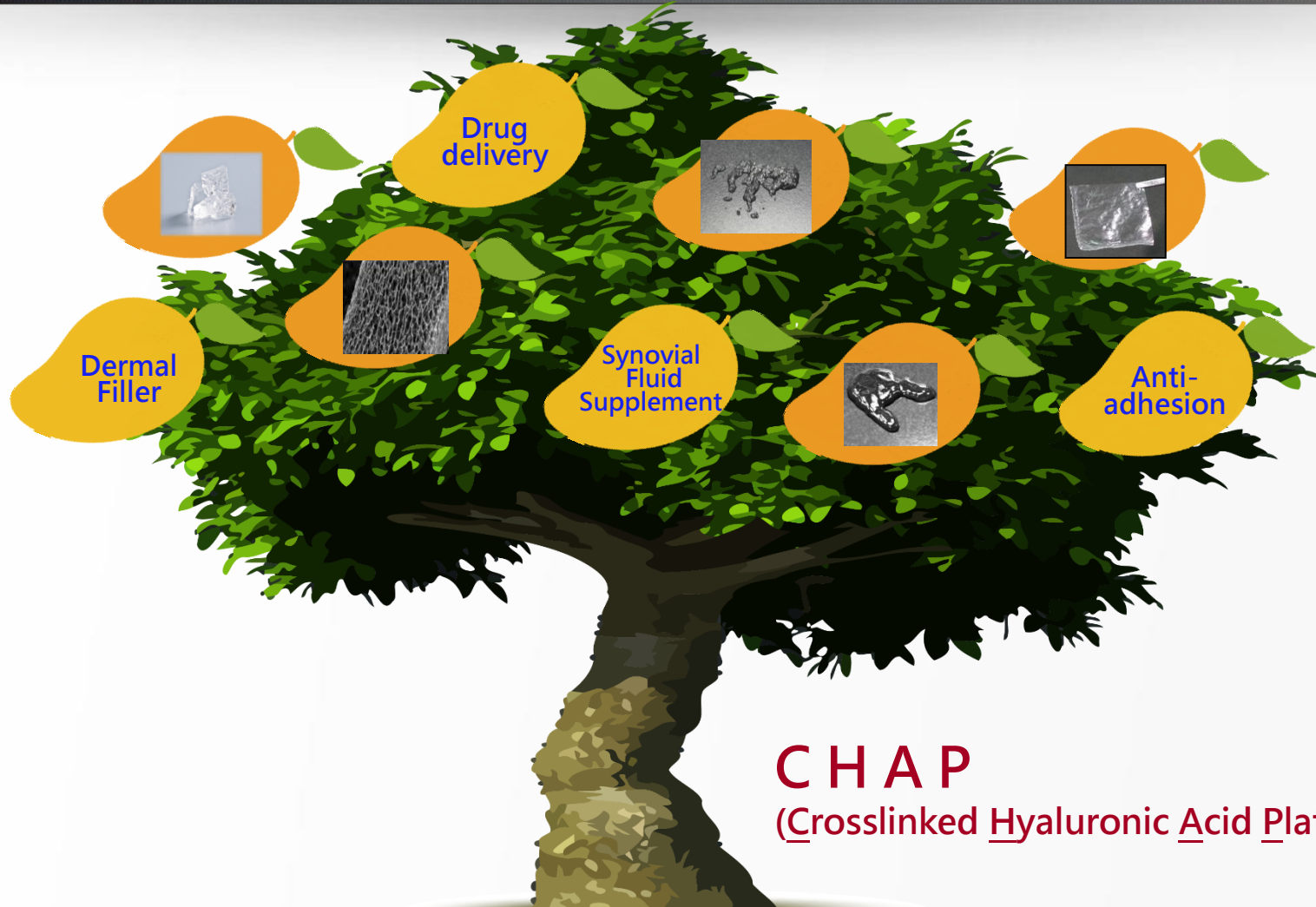
About SciVision

- Established in 2001
- Listed on TSE in 2013 (Code: 1786)
- Located in Kaohsiung Export Processing Zone, Taiwan
- **Professional in Hyaluronic Acid medical device production**
- Factory covers an area of 19,781.85 m² (5,984 Taiwanese ping)
- Follow to ISO 13485, GMP, US FDA and PIC/s GMP standards
- Produces 12 million syringes of medical device annually



SciVISION
BIOTECH INC.

CHAP Applications



CHAP
(Crosslinked Hyaluronic Acid Platform)

Hyaluronic Acid

Hyaluronic Acid

Hyaluronic Acid

Hyaluronic Acid

Important strategic partner



Nestlé
Skin
Health



KALBE



Listed products of SciVision

Application field	Items	Global market value in 2018	CAGR
Facial Aesthetics	Dermal Filler	1.6 billion	9.0 %
Geriatrics care	Viscosupplement	2.1 billion	6.1 %
Surgery	Adhesion Barrier	2.8 billion	8.9 %

source :

1. Facial Aesthetics (Botulinum Toxin, Dermal Fillers), GlobalData
2. Hyaluronic Acid Viscosupplementation | Medtech 360 | Market Analysis | Global | 2019 , DRG
3. ANTI-ADHESION PRODUCTS 2012, Global Industry Analysts, Inc.

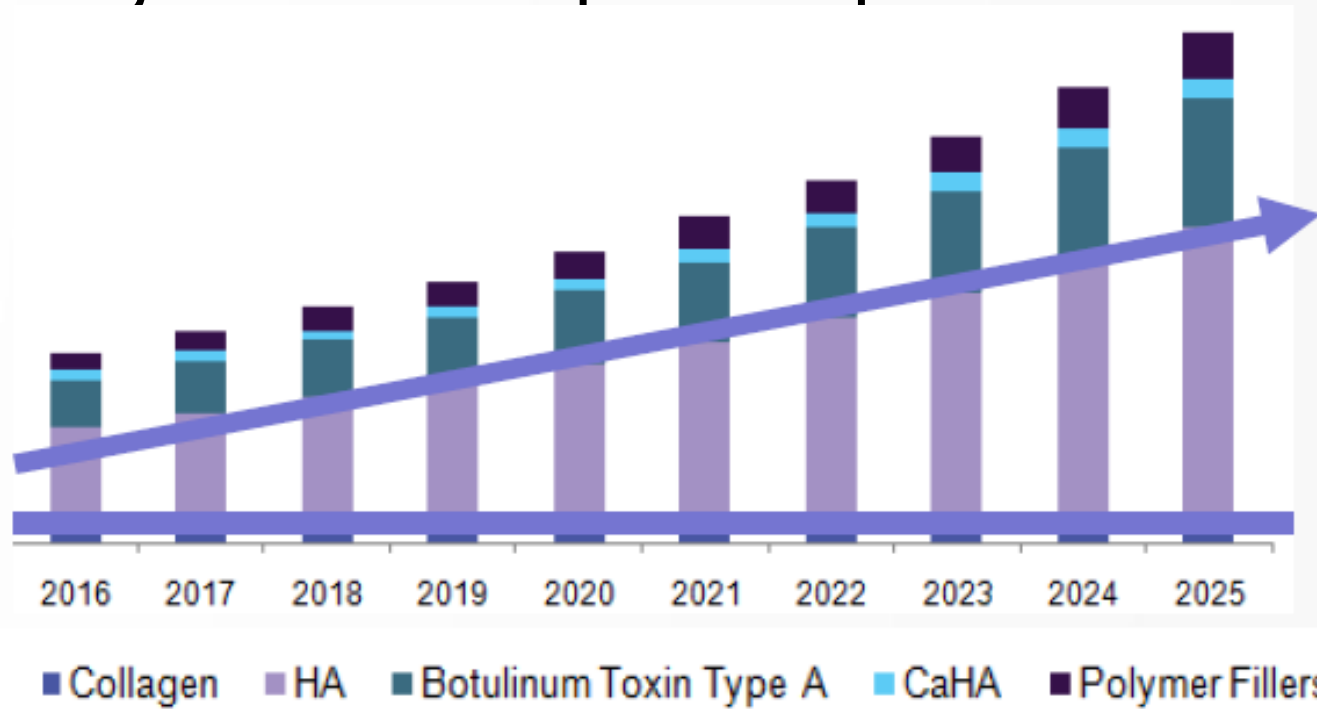
Facial Aesthetics - Dermal Filler

Restore youth and beauty



Microplastic selection

Hyaluronic acid dermal filler is the market's highest microplastic product



資料來源：Facial Injectables Market Analysis By Product (Collagen, Hyaluronic Acid, Botulinum Toxin Type A, Calcium Hydroxylapatite, Polymer Fillers), By Application (Aesthetics, Therapeutics), By Region, And Segment Forecasts, 2018 - 2025

Smooth gel vs Particle type

Hyaluronic acid Dermal Filler can be divided Monophasic Fillers (Smooth gel) and Biphasic Fillers (Particle type) according to the colloidal form of the product. The products represented by each are Juererm of Allergan and Restylane of Galderma.

Allergan's Juvederm and Galderma's Restylane are also the two leading products in the hyaluronic acid Dermal Filler market.



Monophasic Fillers (Smooth gel) –
Allergan Juvederm



Biphasic Fillers (Particle type) –
Galderma Restylane

Dermal Filler



Monophasic Fillers (Smooth gel)



Biphasic Fillers (Particle type)

Dermal Filler

ANIMERS

(smooth gel)

Advantage

- ✓ High security
- ✓ Smooth and natural
- ✓ Easy operation



Monophasic Fillers (Smooth gel)

Dermal Filler

ANIMERS

(smooth gel)

Advantage

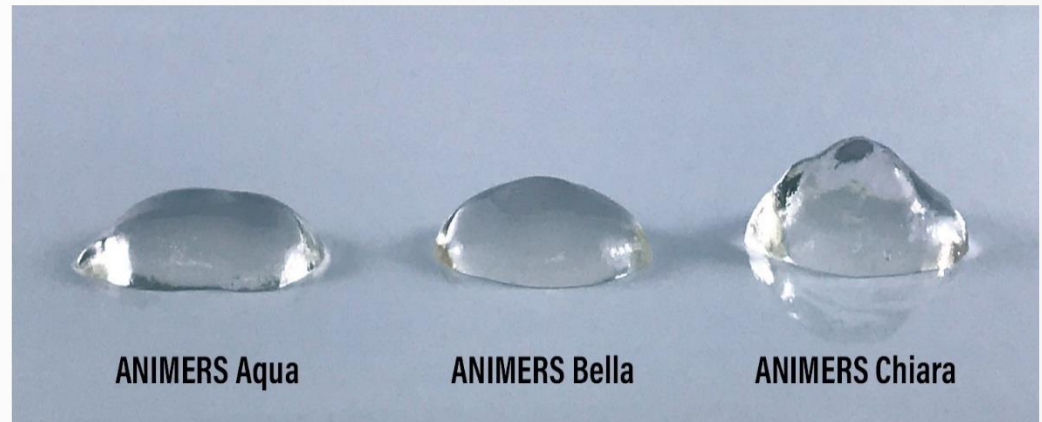
- ✓ High security
- ✓ Smooth and natural
- ✓ Easy operation



Before



After

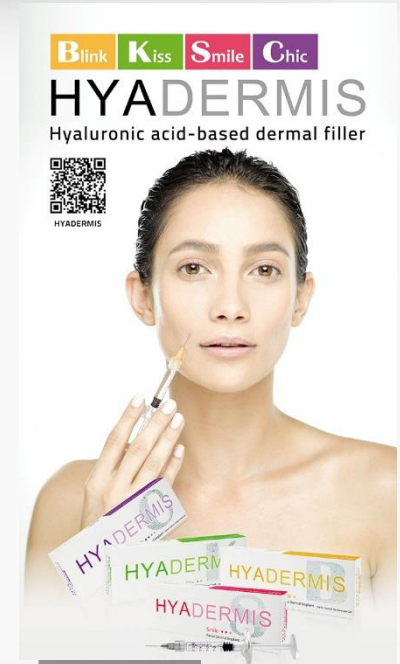


Dermal Filler

HYADERMIS/ FACILLE (Particle type)

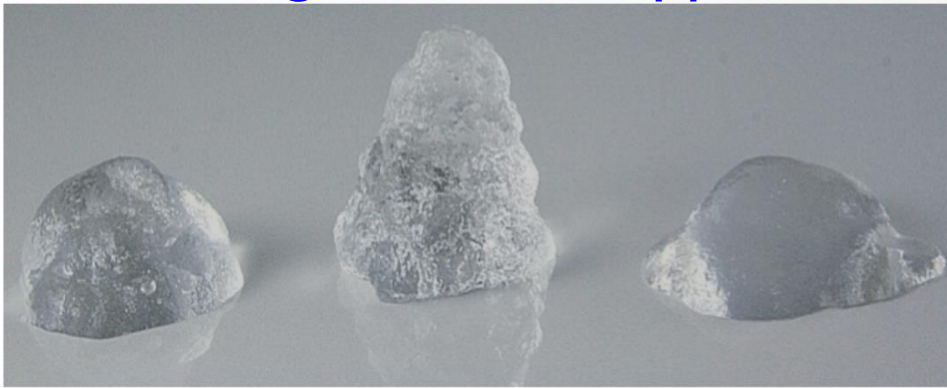
Advantage

- ✓ High safety performance
- ✓ Strong structural support
- ✓ Shift resistance
- ✓ Lasting effect



Proof of advantage

Strong structural support



Competitor 1

FACILLE

Competitor 2

Beforec

After



Shift resistance



Beforec

After



Medical conference booth



Publication of clinical study

Journal of Cosmetics, Dermatological Sciences and Applications, 2016, 6, 1-8

Journal of Cosmetics, Dermatological Sciences and Applications, 2016, 6, 1-8
Published Online March 2016 in SciRes. <http://www.scirp.org/journal/icdsa>
<http://dx.doi.org/10.4236/icdsa.2016.61001>



A Guide to Cheek Augmentation: Single-Point Deep Injection of Hyaluronic Acid Filler at Midface in Close Proximity to Medial Suborbicularis Oculi Fat (SOOF) Area

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Abstract

Loss of volume in midface can result in an aged, wasted appearance. Osseous and fat atrophy with aging may further contribute to the loss of soft tissue support and midface ptosis. In the aging of periorbital area and midface, fat atrophy occurs mostly in the suborbicularis oculi fat (SOOF) area. The authors proposed that injection of hyaluronic acid (HA) filler to support the SOOF area could counteract the aging sign due to fat atrophy, restore volume loss and achieve a more youthful appearance. The authors described the treatment of 10 female patients who received CHAP[®]-particle hyaluronic acid (CHAP[®]-HA) injections for cheek augmentation, using single-point deep injection technique at midface in close proximity to SOOF area. Such approach provides satisfactory cheek augmentation results without significant complications. The authors discussed a rationale for their choice of dermal filler and provided an injection technique for restoring volume in the midface region with CHAP[®]-HA. Such technique is relatively quick to perform, have little down time, and result in a high rate of patient satisfaction.

Keywords

Midface Lift, Cheek Augmentation, Fat Compartment, Suborbicularis Oculi Fat (SOOF), Single-Point Deep Injection, Hyaluronic Acid (HA) Filler, CHAP[®]-Hyaluronic Acid (Crosslinked Hyaluronic Acid Platform, CHAP[®]-HA), Hyadermis[®]

*Corresponding author.

CHAP-HA has good usage satisfaction

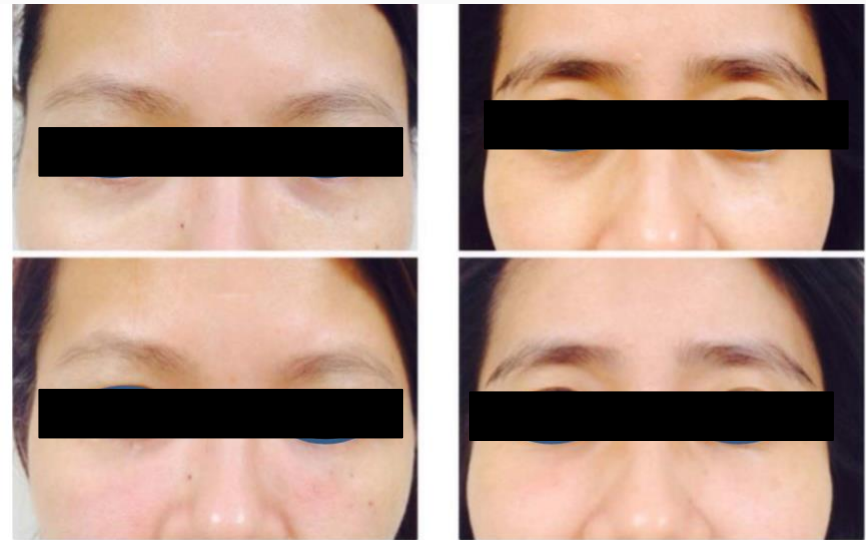


Figure 5. Before (upper) and immediately after (lower) single point deep injection of HA filler (1ml on each side) for cheek augmentation using 27 G sharp needle. Satisfactory results were noted with minimal bruising. Left: Case 2, Right: Case 7.

Publication of clinical study



Journal of Cosmetics, Dermatological Sciences and Applications, 2018, 8, 126-132
<https://www.scirp.org/journal/jcda>
ISSN Online: 2161-4512
ISSN Print: 2161-4105

Use of High-Resolution Ultrasound (HRU) in the Assessment of Deep Injections of CHAP-Hyaluronic Acid (CHAP-HA) Fillers for Midface Lift

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<https://doi.org/10.4236/jcda.2018.83014>

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Abstract

High-resolution ultrasound (HRU) imaging is a useful tool to study hyaluronic acid (HA) filler injection in the face. It is noninvasive, quick, well-tolerated, and can provide *in vivo* and dynamic information. The formations of pools or pearls in HA fillers could be observed real time during injection. The plane of injection could be determined accurately, and there were no specimen manipulation artifacts. It was observed that HA gel fillers with differing production technologies showed distinct spread and distribution patterns in the periocular tissues on HRU examination. The authors used HRU to assess deep injections of CHAP-Hyaluronic Acid (CHAP-HA) fillers for midface lift. 10 patients who underwent bilateral midface deep injections using CHAP-HA filler were examined with HRU before and immediately after treatment, and in 2 weeks and one month later. The CHAP-HA appeared as hypoechoic densities within the preperiosteal plane in HRU. CHAP-HA adopted variable morphology within the tissue depending on individual tissue densities and the compliance of the tissues in the plane of injection. CHAP-HA was unidentifiable with surrounding tissue after one month in 13 of the 20 injection sites. HRU allows *in vivo* study of CHAP-HA injection behavior and could be a tool for further studies of HA-tissue reactions.

Keywords

CHAP-Hyaluronic Acid (CHAP-HA) Filler, High-Resolution Ultrasound (HRU), Midface Lift, Deep Injections, Preperiosteal Filler Injections

CHAP-HA has good tissue compatibility

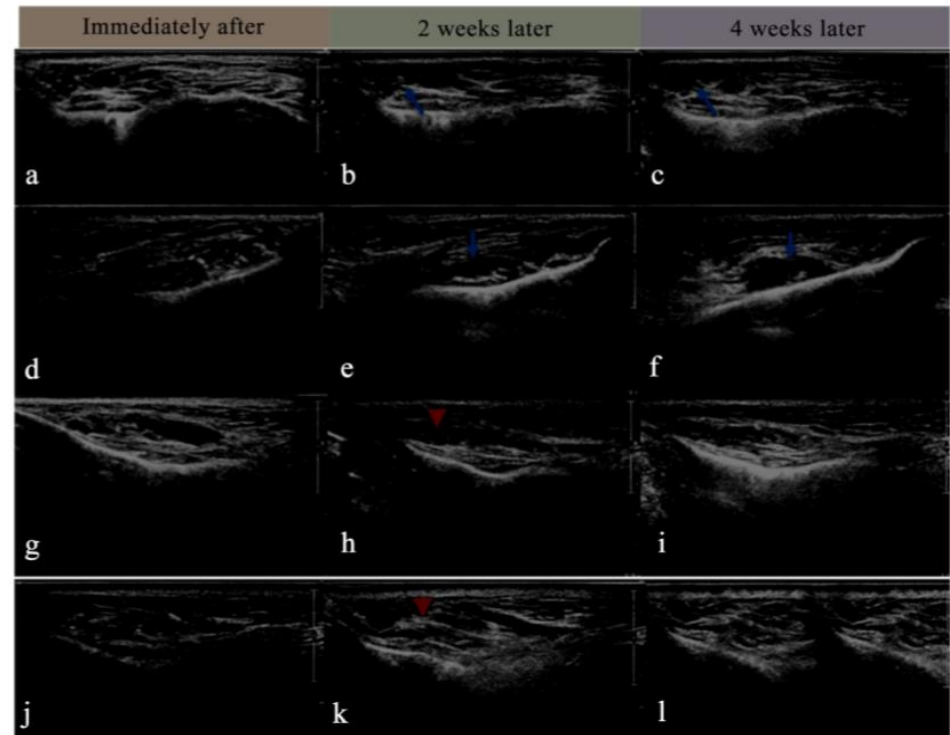
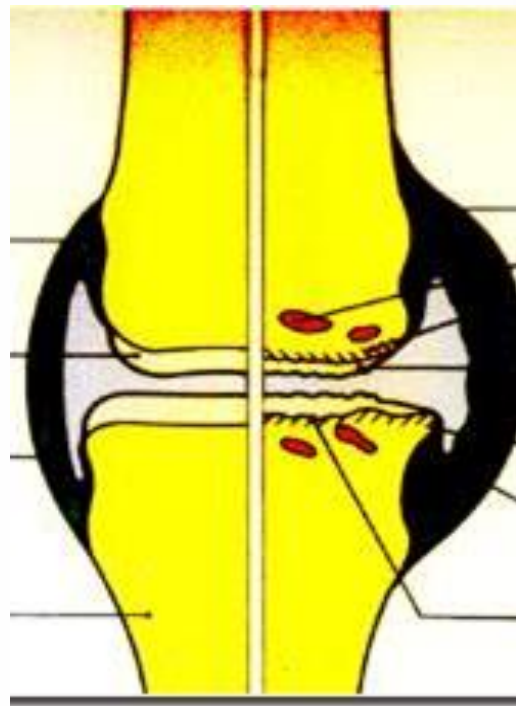


Figure 5. High-resolution ultrasound imaging immediately after HA injection (a, d, g, j), at 2-Week (d, e, h, k) and 4-week (c, f, i, l) follow up. Hydration of the HA would occur (arrows), and the ha would appear to be more heterogenous and hyperechoic (arrowheads) and may became completely unidentifiable with the surrounding tissues in the 4th week follow up (i, j).

Osteoarthritis (OA)

Osteoarthritis of the knee has been associated with a decrease in the elasticity and viscosity of the synovial fluid



Inflammation
(erythema and swelling)

Lost of cartilage

Normal

OA



Viscosupplement

1 INJECTION

HYAJOINT Plus

Synovial Fluid Supplement

Osteoarthritis Improvement



HYAJOINT

Hyaluronic Acid-Based
Synovial Fluid Supplement










3 INJECTION

Advantage

- ✓ High Security Performance
- ✓ Long Lasting Effect
- ✓ High Comfort
- ✓ Needless of Excessive Injection

Better than competing products

Brand	Artz	HYAJOINT	Synvisc	Synvisc-One	Durolane	HYAJOINT Plus
Manufacturing	Seikagaku	SciVision	Genzyme	Genzyme	Q-Med AB	SciVision
HA raw material source	Animal-derived	Bacteria-derived	Animal-derived	Animal-derived	Bacteria-derived	Bacteria-derived 
HA Type	Linear	Linear	Cross linked	Cross linked	Cross Linked	Cross linked 
Gel Appearance	smooth	smooth	smooth	smooth	grainyl	smooth 
Linker	None	None	DVS	DVS	BDDE	BDDE 
Volume (ml/syringe)	2.5	3	2	6	3	3 
HA con. (mg/ml)	10	10	8	8	20	20 
Injection Types	5/3	3	3	1	1	1 

Publication of clinical study

JBJS America, impact factor=5.163
Top international journal in Orthopedics

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Comparison of Single Intra-Articular Injection of Novel Hyaluronan (HYA-JOINT Plus) with Synvisc-One for Knee Osteoarthritis

A Randomized, Controlled, Double-Blind Trial of Efficacy and Safety

Shu-Fen Sun, MD, Chien-Wei Hsu, MD, Huey Shyan Lin, PhD, I-Hsiu Liou, MD, Yin-Han Chen, MD, and Chia-Ling Hung, MD

Investigation performed at the Kaohsiung Veterans General Hospital, Kaohsiung City, Taiwan

Background: Viscosupplementation has been widely used for the treatment of knee osteoarthritis. Because we found no well-controlled trial comparing single-injection regimens of hyaluronan for knee osteoarthritis, we compared the efficacy and safety of a single intra-articular injection of a novel cross-linked hyaluronan (HYA-JOINT Plus) with a single injection of Synvisc-One in patients with knee osteoarthritis.

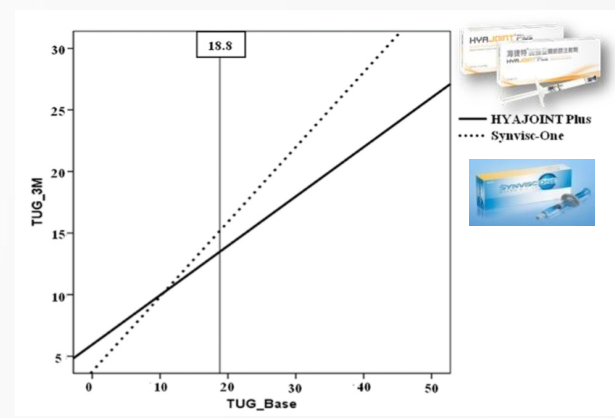
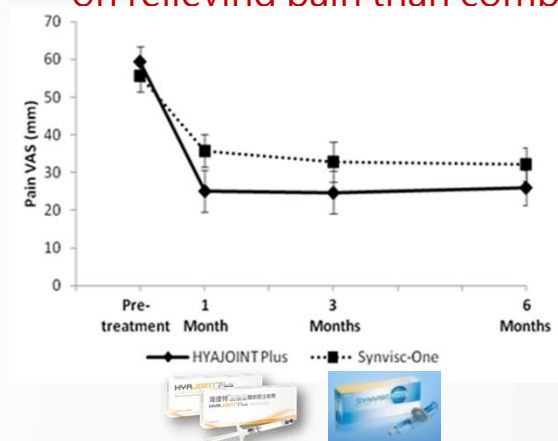
Methods: In a prospective, randomized, controlled, double-blind trial with a 6-month follow-up, 132 patients with knee osteoarthritis (Kellgren-Lawrence grade 2 or 3) were randomized to receive 1 intra-articular injection of 3 mL of HYA-JOINT Plus (20 mg/mL) (n = 66) or 6 mL of Synvisc-One (8 mg/mL) (n = 66). The primary outcome was the change from baseline in the visual analog scale (VAS) (0 to 100 mm) pain score at 6 months. Secondary outcome measures included the Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC, Likert scale), Lequesne index, timed "Up & Go" (TUG) test, single-limb stance (SLS) test, use of rescue analgesics, and patient satisfaction.

Results: A total of 121 patients were available for the intention to treat analysis at 6 months. Both groups had a significant improvement in the VAS, WOMAC, and Lequesne index scores at each follow-up visit ($p < 0.001$). Patients who received HYA-JOINT Plus experienced a significantly greater improvement in the VAS pain score at 1, 3, and 6 months compared with those treated with Synvisc-One (adjusted mean difference: -12.0, -8.5, and -6.6; $p = 0.001, 0.033, \text{ and } 0.045$, respectively). There were no significant between-group differences in any of the secondary outcomes except the WOMAC stiffness scores at 6 months, which favored HYA-JOINT Plus treatment ($p = 0.043$). The TUG time did not change significantly in either group during the study ($p > 0.05$), but the SLS time improved significantly in both the HYA-JOINT Plus and the Synvisc-One group ($p = 0.004$ and $p = 0.022$, respectively). No significant between-group differences were observed with respect to patient satisfaction or consumption of analgesics. No serious adverse events occurred following the injections.

Conclusions: A single injection of either HYA-JOINT Plus or Synvisc-One is safe and effective for 6 months in patients with knee osteoarthritis. HYA-JOINT Plus is superior to Synvisc-One in terms of reducing the VAS pain score at 1, 3, and 6 months and the WOMAC stiffness score at 6 months, with similar safety.

Level of Evidence: Therapeutic Level I. See Instructions for Authors for a complete description of levels of evidence.

HYAJOINT Plus has a significantly better effect on relieving pain than competitive products



HYAJOINT Plus is significantly better than competitive products for more severe OA patients

Publication of clinical study

Journal of Back and Musculoskeletal Rehabilitation 31 (2018) 709–718

Journal of Back and Musculoskeletal Rehabilitation 31 (2018) 709–718
DOI: 10.3233/JBMR-170950
IOS Press

709

Improvement of self-reported functional scores and thickening of quadriceps and femoral intercondylar cartilage under ultrasonography after single intra-articular injection of a novel cross-linked hyaluronic acid in the treatment of knee osteoarthritis

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^bDepartment of Physical Medicine and Rehabilitation, Kaohsiung Veterans General Hospital, Kaohsiung, Taiwan

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^dSchool of Medicine, National Yang-Ming University, Taipei, Taiwan

Abstract

BACKGROUND: Most studies used hyaluronic acid (HA) requiring 3–5 intra-articular injections (IAJ) for knee osteoarthritis (KOA).

OBJECTIVE: We evaluated the efficacy of a single IAJ of a novel HA by measuring the thickness of quadriceps and femoral intercondylar cartilage (FIC) under ultrasonography (US) in addition to subjective self-reported measures.

METHODS: Forty-nine patients with KOA (Kellgren-Lawrence grades 2–3) received unilateral IAJ of HYAJOINT Plus to the worse knee and were assessed at baseline and 1, 3 and 6-months after IAJ. Outcome measures were the (1) Visual Analog Scale for pain (VAS), (2) Western Ontario and McMaster Universities Osteoarthritis Index (WOMAC), (3) Lequesne's Index, (4) single-leg-stance duration (5) thigh circumference, and (6) thickness of quadriceps and FIC under US.

RESULTS: Forty-six patients completed the 6-month-follow-up study. All outcome measures improved significantly after HA injection ($p < 0.001$). Both VAS and WOMAC-pain subscale scores improved significantly at 1, 3, and 6 months ($p < 0.01$). The US thickness of the quadriceps and FIC improved significantly at both 3 and 6 months ($p < 0.05$). The Lequesne's index, single-leg-stance and thigh circumference improved significantly at 6 months ($p < 0.01$).

CONCLUSIONS: HYAJOINT Plus is effective both subjectively and objectively for 6 months and is safe as a treatment for KOA.

Keywords: Knee pain, osteoarthritis, hyaluronic acid, ultrasonography

1. Introduction

Osteoarthritis (OA) is the most common musculoskeletal disease around the world. Among populations with OA, 80% of them have limited range of motion of joints, and 25% of them cannot perform major

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The US thickness of the quadriceps and FIC improved significantly at both 3 and 6 months

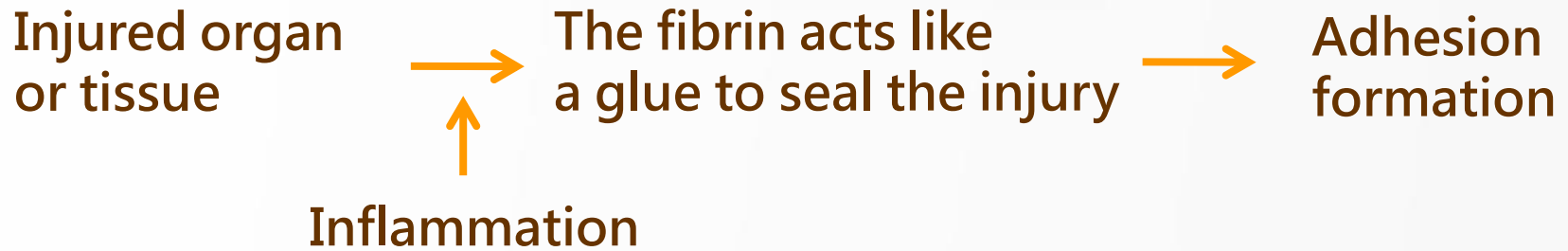


Measurement of quadriceps thickness



Measurement of femoral intercondylar cartilage thickness

Postsurgical adhesion



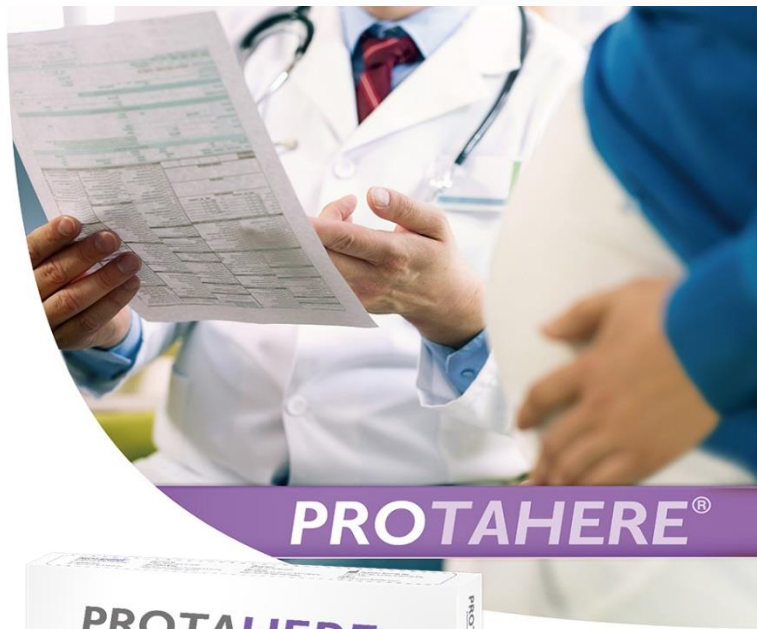
Gynecologic surgery



Tendon, peripheral nerve, joint surgery

Absorbable Adhesion Barrier

Absorbable Adhesion Barrier
Gynecologic surgery



Absorbable Adhesion Barrier
Tendon, peripheral nerve, joint surgery



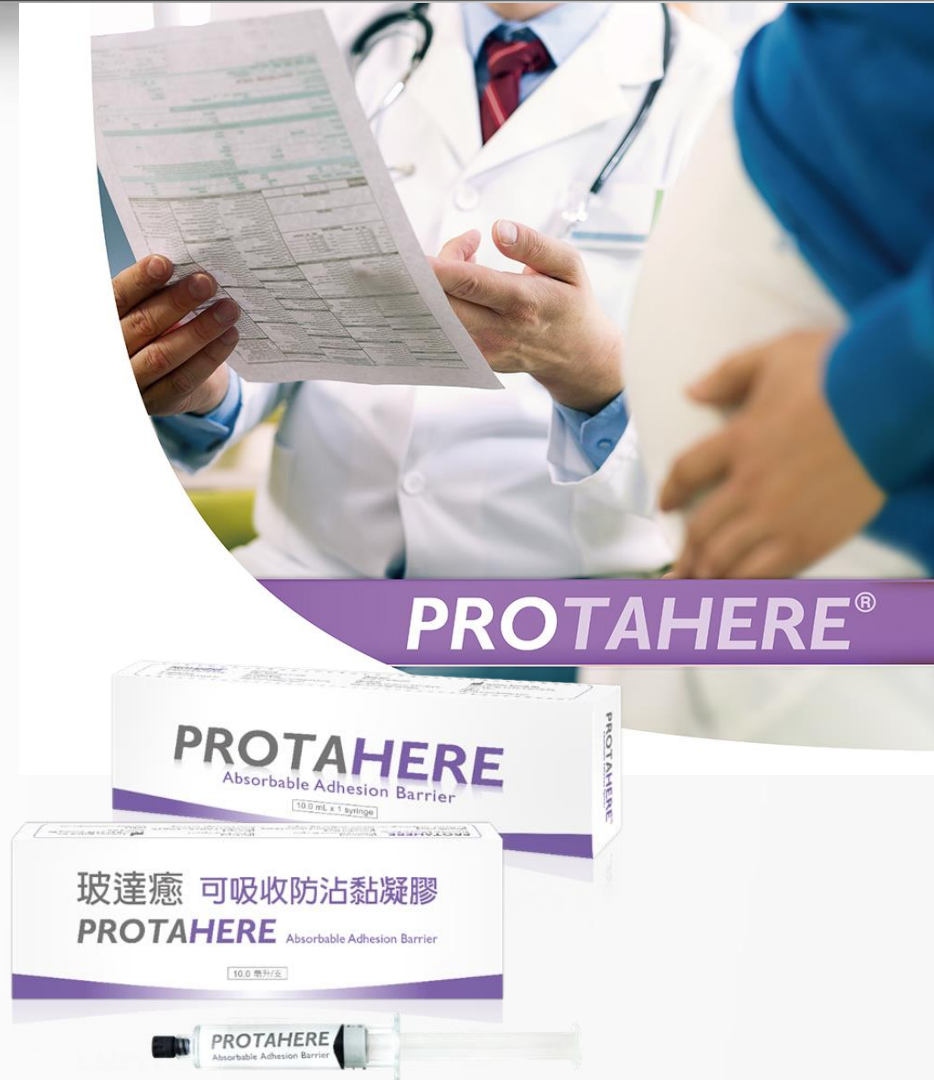
Absorbable Adhesion Barrier

Absorbable Adhesion Barrier
Gynecologic surgery






PROTAHERE

Advantage

- ✓ High Biocompatibility
- ✓ Easy to apply
- ✓ Shift resistance

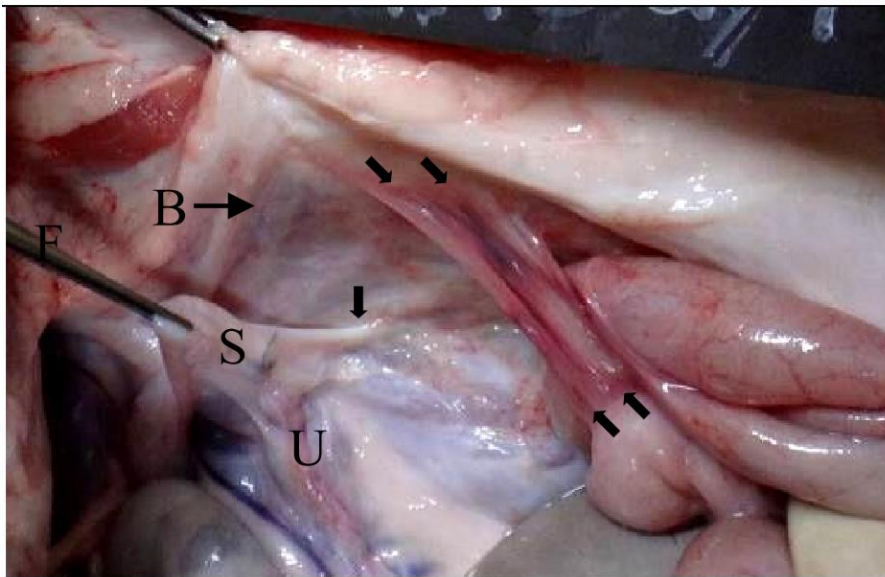


Better than competing products

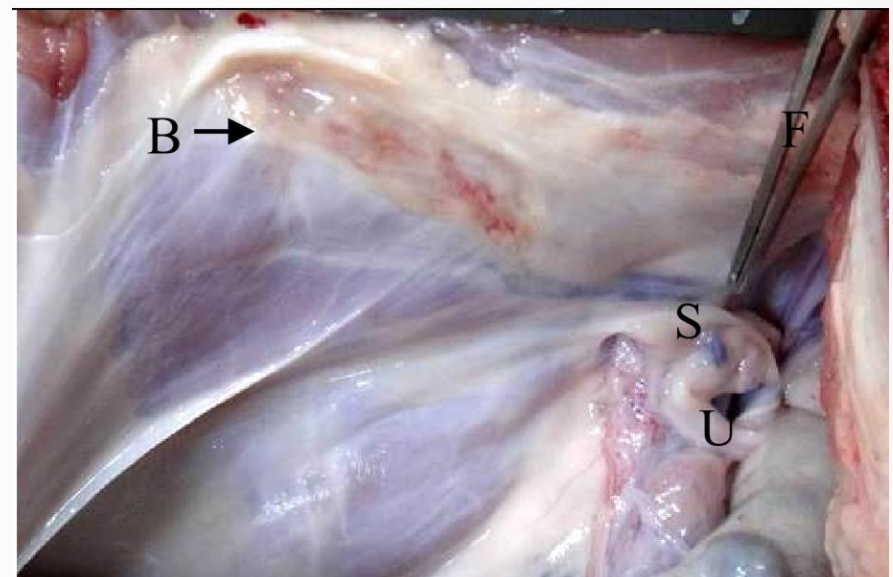
Products Items	Preclude	SurgiWarp	Interceed	Seprafilm	Hyalobarrier	PROTAHERE
Company	GORE	MAST BIOSURGERY	Johnson	SANOFI	Fidia	SCIVISION
Material	expanded polytetrafluoroethylene (ePTFE)	Polylactic Acid (PLA)	oxidized regenerated cellulose (ORC)	Hyaluronic Acid and Carboxymethyl cellulose (CMC)	Cross-linked Hyaluronic Acid	Cross-linked Hyaluronic Acid 
Type	Film	Film	Film	Film	gel	gel 
Absorbability	Non	⚙	⚙⚙	⚙⚙⚙	⚙⚙⚙⚙	⚙⚙⚙⚙ 
Usability	⚙	⚙⚙	⚙⚙	⚙⚙⚙	⚙⚙⚙⚙	⚙⚙⚙⚙ 
Shift resistance	⚙	⚙	⚙⚙	⚙⚙	⚙⚙⚙	⚙⚙⚙⚙ 

Prevent postoperative adhesions

Control group (Unused)



Use PROTAHERE



Adhesion Barrier

Absorbable Adhesion Barrier
Tendon, peripheral nerve, joint surgery







DEFEHERE

Advantage

- ✓ High Biocompatibility
- ✓ Easy to apply
- ✓ High viscosity
- ✓ Long effective protection time



Better than competing products

Item \ Product	OrthoWrap	FzioMed	Hyaloglide	DEFEHERE
Company	Mast	Medtronic	Anika	SCIVISION 
Material	Polylactic Acid (PLA)	Polyethylene oxide(PEO) and carboxymethylcellulose (CMC)	Cross-linked Hyaluronic Acid	Cross-linked Hyaluronic Acid 
Type	Film	gel	gel	gel 
Usability	⚙️ (Suture in place)	⚙️⚙️⚙️⚙️	⚙️⚙️⚙️⚙️	⚙️⚙️⚙️⚙️ 
Biocompatibility	⚙️⚙️⚙️	⚙️⚙️	⚙️⚙️⚙️⚙️	⚙️⚙️⚙️⚙️ 
Anti-degradation ability	-	-	⚙️⚙️	⚙️⚙️⚙️ 

Outline

1. Company & Product & Technology Overview

2. Business Operation

Profit & Loss-Consolidated

Unit:NT thousand dollars

(except for EPS)

Revenue

Cost of Goods Sold

Gross Profit

Operating Expense

Operating Income

Non-operating Income,Net

Income before Tax

Net Income

Weighted average number of shares outstanding

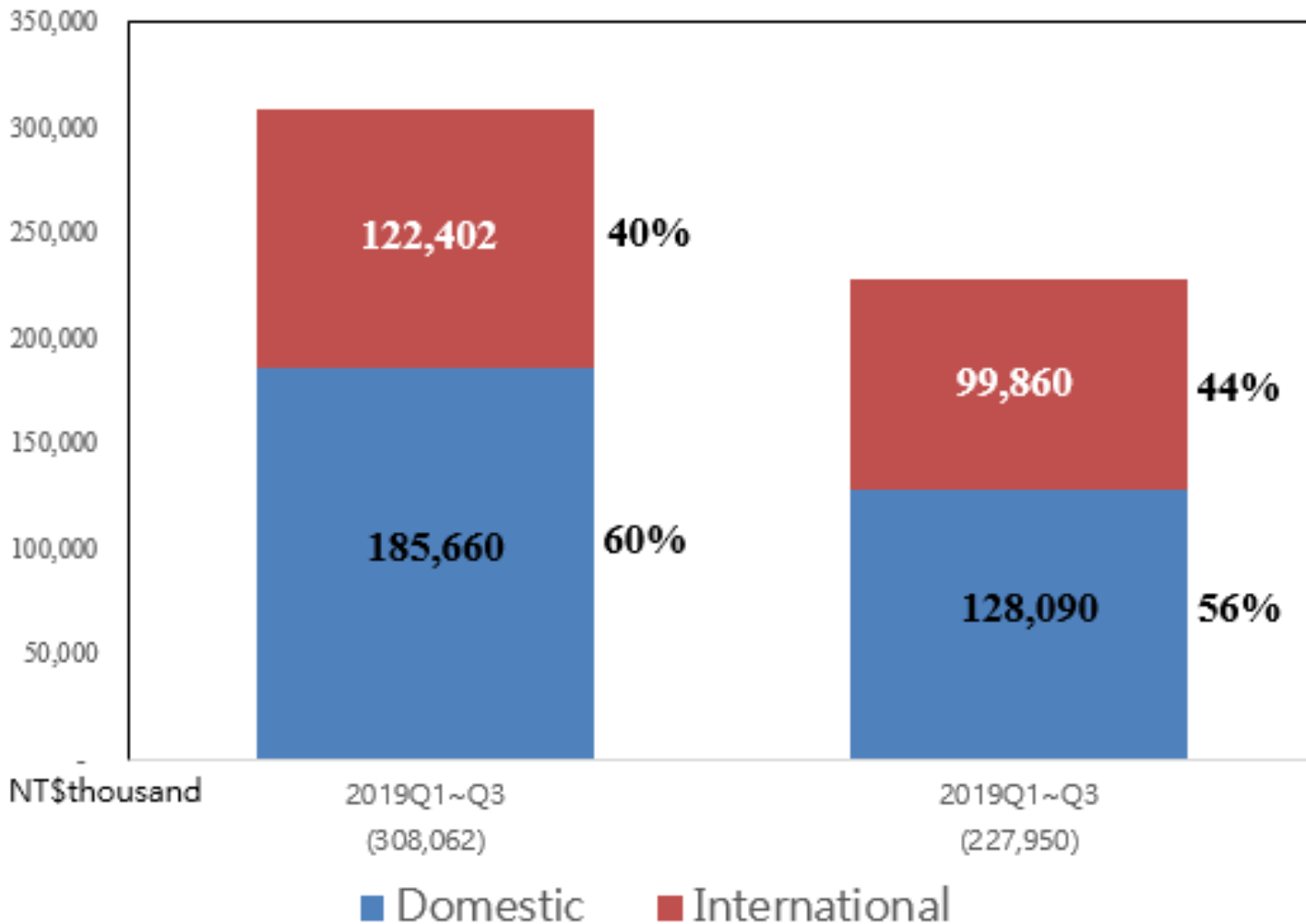
(in thousands of shares)

EPS(NT\$)

	2019 Jan.~Sep. (Reviewed)		2018 Jan.~Sep. (Reviewed)		YoY %
Revenue	308,062	100%	227,948	100%	35.1%
Cost of Goods Sold	(101,279)	-33%	(78,612)	-34%	28.8%
Gross Profit	206,783	67%	149,336	66%	38.5%
Operating Expense	(119,215)	-39%	(98,443)	-43%	21.1%
Operating Income	87,568	28%	50,893	22%	72.1%
Non-operating Income,Net	877	0%	10,104	4%	-91.3%
Income before Tax	88,445	29%	60,997	27%	45.0%
Net Income	80,841	26%	55,343	24%	46.1%
Weighted average number of shares outstanding (in thousands of shares)	57,604		52,012		
EPS(NT\$)	1.4		1.06		

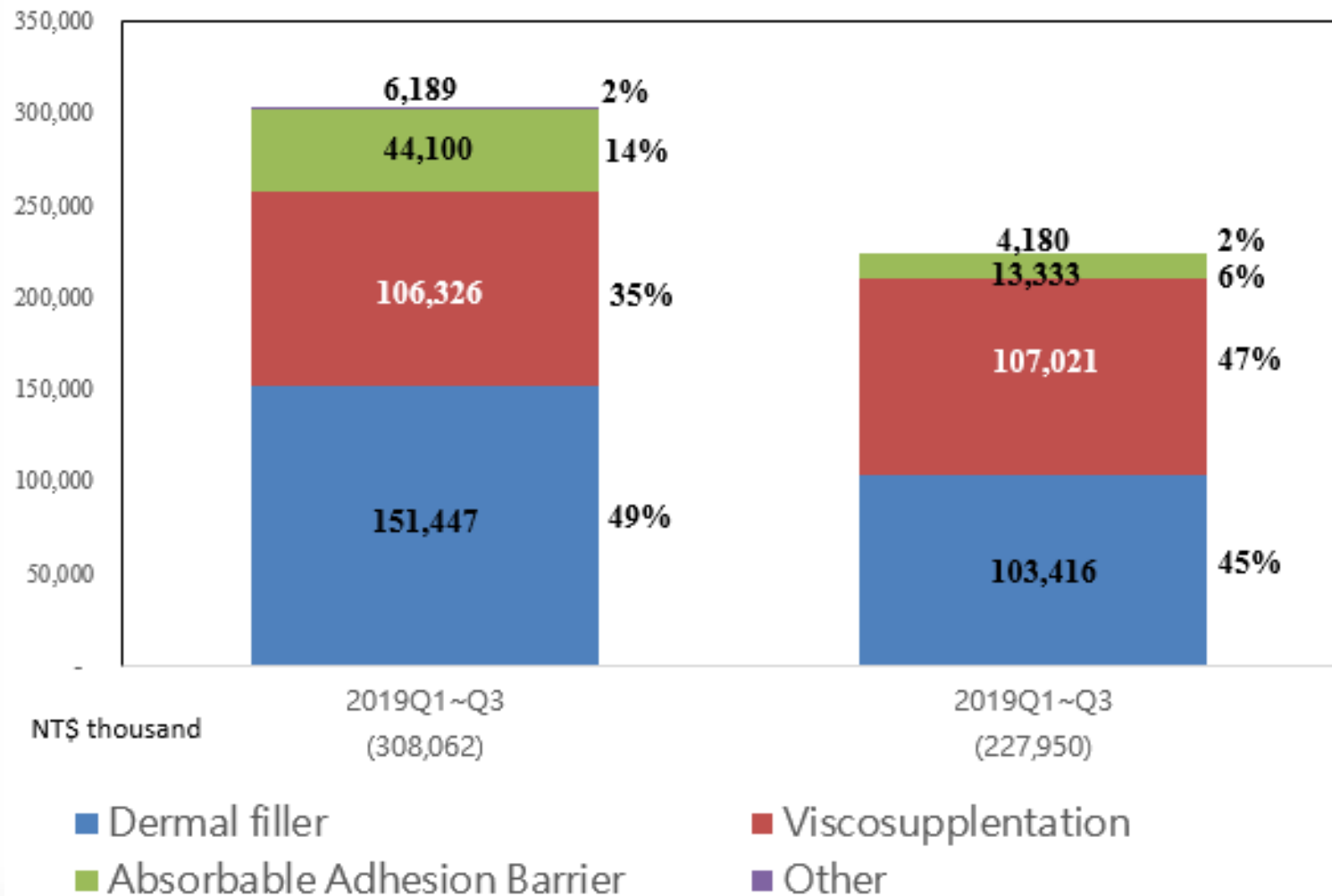
Domestic and International Sales Ratio

2019 Jan.~Sep. & 2018 Jan.~Sep.



Product Portfolio Sales Ratio

2019 Jan.~Sep. & 2018 Jan.~Sep.



Balance Sheet-Consolidated

Unit:NT thousand dollars

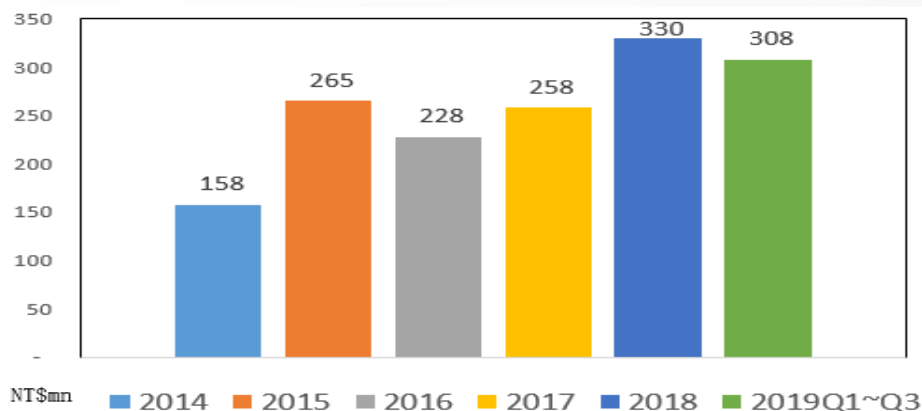
	2019/9/30 (Reviewed)		2018/9/30 (Reviewed)	
Cash and Cash Equivalents	224,520	12%	467,915	27%
Accounts Receivable	64,895	4%	42,705	2%
Inventories	36,289	2%	36,775	2%
Financial asset measured at fair value through other comprehensive income	-	0%	3,690	0%
Financial assets carried at cost	145,554	8%	12,559	1%
Property,Plant & Equipment	1,239,048	69%	1,037,513	61%
Other Current/Non-Current Assets	89,776	5%	109,022	7%
Total Assets	1,800,082	100%	1,710,179	100%
Current Liabilities	128,792	7%	231,352	14%
Long-Term & Other Liabilities	350,145	20%	428,495	25%
Total Liabilities	478,937	27%	659,847	39%
Total Shareholders' Equities	1,321,145	73%	1,050,332	61%
Key Indices				
A/R Turnover (Days)	61.47		56.57	
Inventory Turnover (Days)	105.49		121.14	
Current Ratio(x)	385.48%		250.63%	
ROE(%)	8.99%		7.51%	

Cash Flows-Consolidated

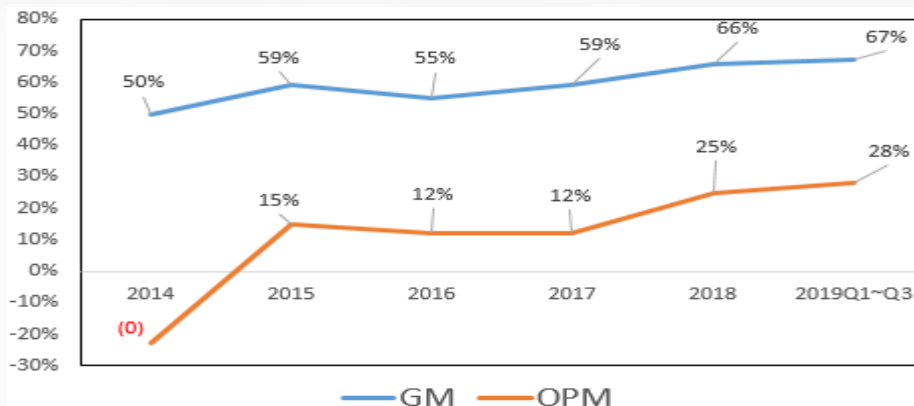
Unit:NT thousand dollars	2019 Jan.~Sep. (Reviewed)	2018 Jan.~Sep. (Reviewed)
From Operating Activities	132,148	104,298
Profit before tax	88,445	60,997
Depreciation & Amortisation	9,788	14,563
Net change in working capital	33,915	28,738
From Investing Activities	(281,675)	(30,095)
Financial asset measured at amortised cost	(130,246)	6,825
Capital expenditure	(189,915)	(36,906)
Net change in Investment fund changes	38,486	(14)
From Financing Activities	5,167	63,704
Short-term loans	0	10,000
Long-term loans	(137,031)	(22,491)
Net change in financing fund changes	142,198	76,195
Net Change in Cash	(144,432)	137,827
Beginning Balance	368,952	330,088
Ending Balance	224,520	467,915

HEALTHY CASHFLOW AND EXPANDING PROFIT

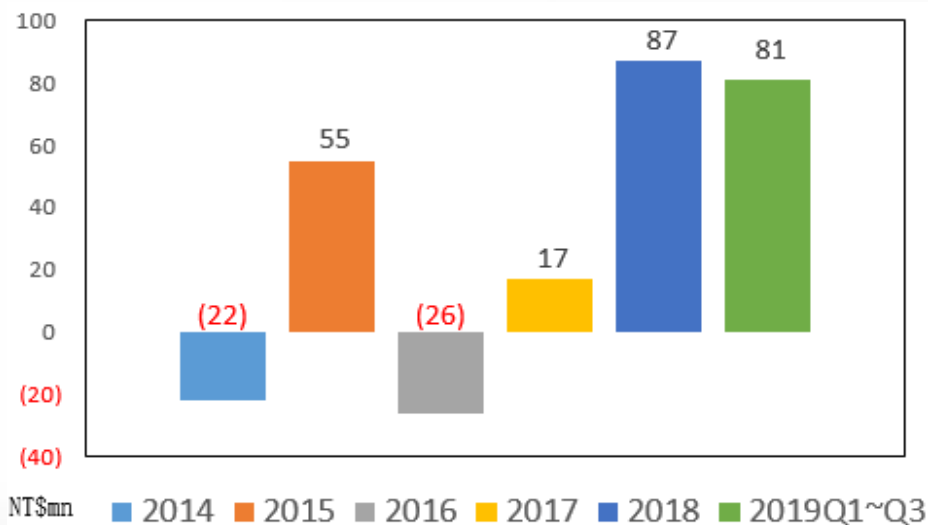
Revenue



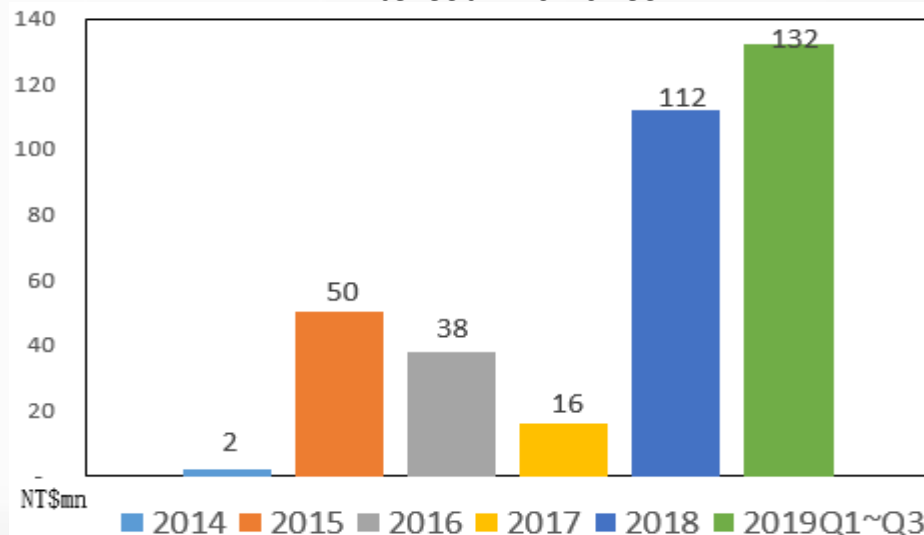
Gross and Operating Margin



Net Profit



Cash Generated From Operations Before Interest And Taxes



Vision & Prospect



Science Creates Better Visions