

**Ultherapy® and Radiesse®  
Combination Treatment to Improve  
Skin Laxity and Cellulite Appearance  
on Buttocks and Thighs**

Gabriela Casabona

Private Practice, São Paulo, Brazil

# Disclosure

- Dr Casabona has no financial interest in any of the products, devices, or drugs mentioned in this presentation

# Cellulite

- Cellulite is estimated to affect 80–90% of post-pubertal women
- Changes in dermal and subdermal fibroelastic tissue structure contribute to worsening of cellulite with age
- Treating skin laxity to improve the appearance of cellulite requires stimulation of new collagen formation and dermal remodeling



Typical cellulite appearance

# Rationale for combining MFU-V and CaHA

Microfocused ultrasound with  
visualization (MFU-V) delivered by  
Ultherapy<sup>®</sup> System

Radiesse<sup>®</sup>  
calcium hydroxylapatite  
(CaHA)



# Study aims

- To evaluate the effects of combined MFU-V/CaHA skin-tightening treatment on buttock and thigh cellulite appearance
- To determine whether MFU-V enhances CaHA-induced neocollagenesis

# Study design

Study type	Retrospectively enrolled case series
Subjects	20 women (18-55 years) with moderate-to-severe cellulite who had undergone MFU-V and CaHA treatment for skin laxity on buttocks and thighs
Treatment	<p>MFU-V applied using 4 and 7 MHz transducers at focal depths of 4.5 and 3.0 mm (25 lines/transducer/site)</p> <p>Immediately after, subdermal injections of CaHA diluted 1:1 with 2% lidocaine solution at same site using microdroplet fanning technique (1 ml/site)</p> <p>One subject scheduled for thighplasty received treatment with six different CaHA:lidocaine dilutions (0.3 ml/5 cm<sup>2</sup>) followed by MFU-V</p> <p>Tissue specimens from each dilution site were stained with picosirius red solution and examined under polarized light microscopy for estimation of amounts of collagen type I, type III and total collagen</p>
Study endpoints	<p>Photographs taken at baseline and at 90 days and graded by 2 independent, blinded evaluators using Hexsel Cellulite Severity Scale<sup>1</sup></p> <p>Patient satisfaction questionnaire</p>

1. Hexsel DM et al. *J Eur Acad Dermatol Venereol*. 2009;23:523–528.

# Significant improvements observed for each item on cellulite severity scale

CSS item	Evaluator 1			
	Baseline	90 Days	Between-group difference	P value
No. of depressions	2.00 (0.73)	1.10 (0.79)	-0.90 (0.31)	<0.001
Depth of depressions	1.85 (0.81)	0.95 (0.69)	-0.90 (0.72)	<0.001
Appearance of skin surface alterations	1.65 (0.99)	0.70 (0.86)	-0.95 (0.60)	<0.001
Grade of skin laxity, flaccidity or sagging	1.65 (0.75)	0.70 (0.66)	-0.95 (0.51)	<0.001
Nürnberg and Müller classification	2.30 (0.66)	1.50 (0.69)	-0.80 (0.41)	<0.001
Overall score	9.45 (2.98)	4.95 (3.02)	-4.50 (1.00)	<0.001



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Improvement from moderate-to-severe to mild after only 1 treatment session

# Significant improvements observed for each item on cellulite severity scale

CSS item	Evaluator 2			
	Baseline	90 Days	Between-group difference	P value
No. of depressions	2.00 (0.73)	1.10 (0.79)	-0.90 (0.31)	<0.001
Depth of depressions	1.85 (0.81)	0.95 (0.69)	-0.90 (0.72)	<0.001
Appearance of skin surface alterations	1.65 (0.99)	0.75 (0.97)	-0.90 (0.64)	<0.001
Grade of skin laxity, flaccidity or sagging	1.70 (0.80)	0.75 (0.72)	-0.95 (0.51)	<0.001
Nürnberg and Müller classification	2.30 (0.66)	1.50 (0.69)	-0.80 (0.41)	<0.001
Overall score	9.50 (3.07)	5.05 (3.25)	-4.45 (1.10)	<0.001

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CSS item	Evaluator 2			
	Baseline	90 Days	Between-group difference	P value
No. of depressions	2.00 (0.73)	1.10 (0.79)	-0.90 (0.31)	<0.001
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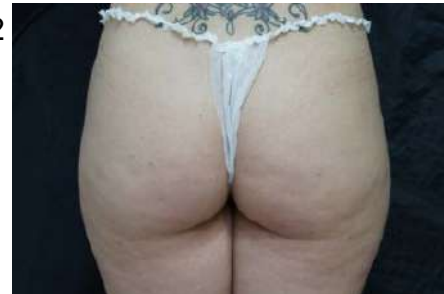


# Improvements in cellulite severity

A1



A2



B1



B2



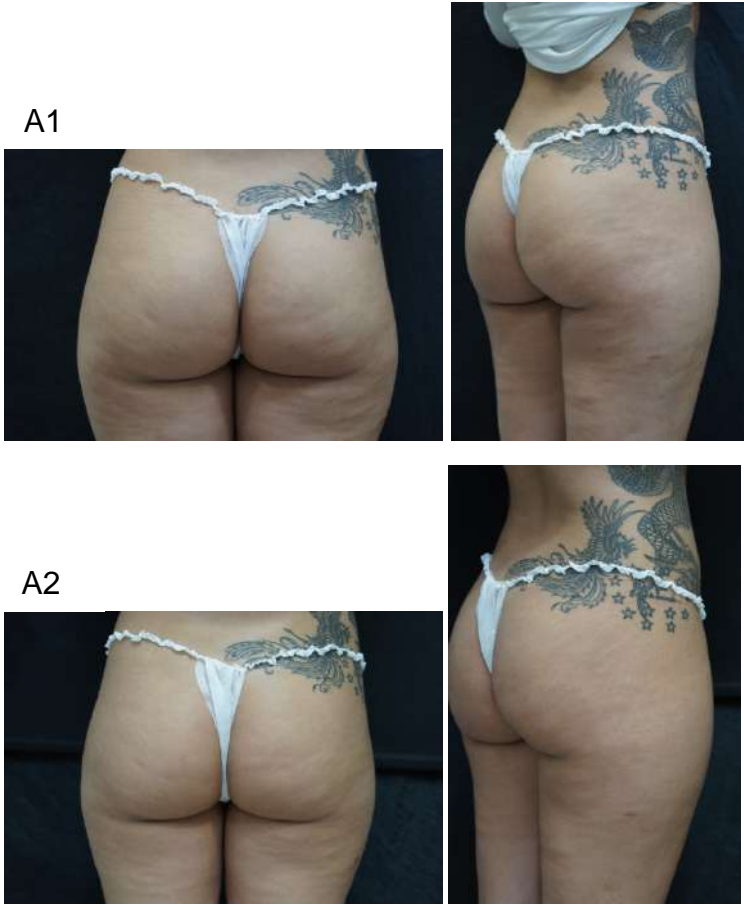
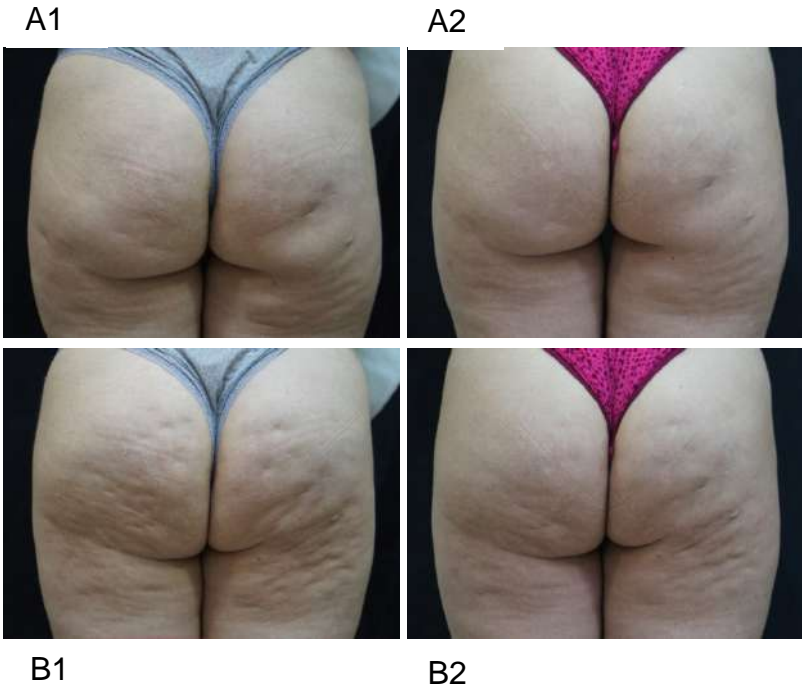
C1



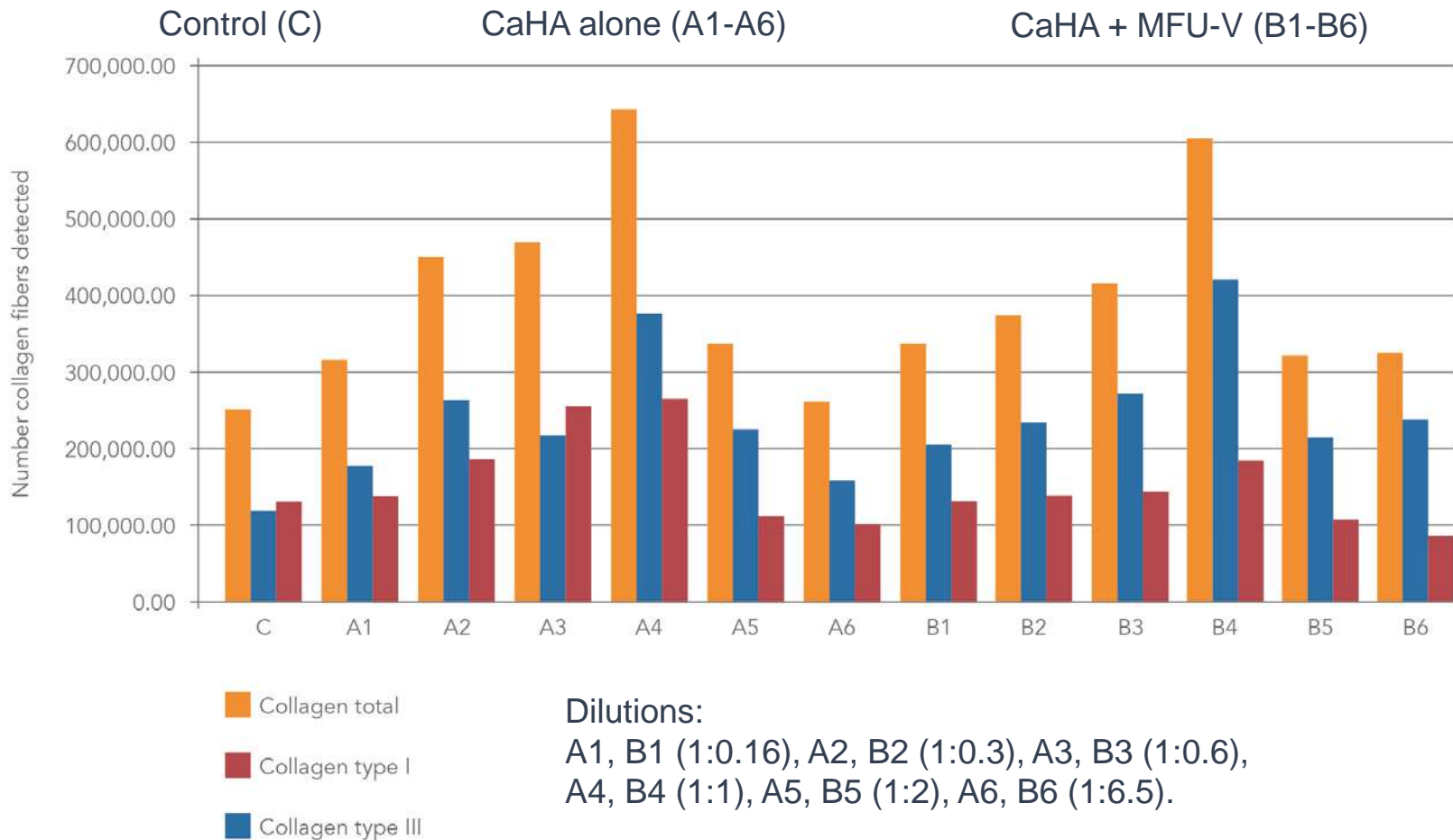
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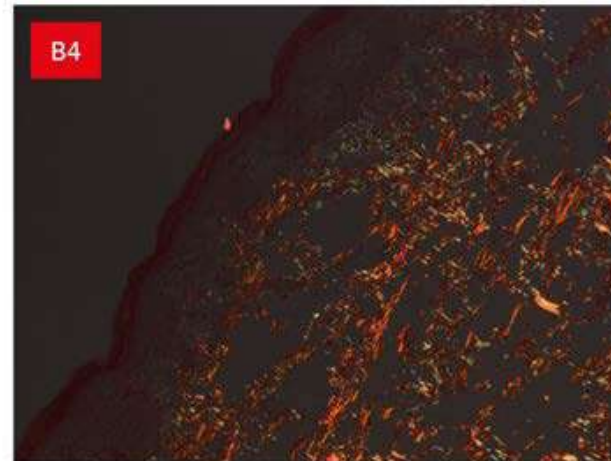
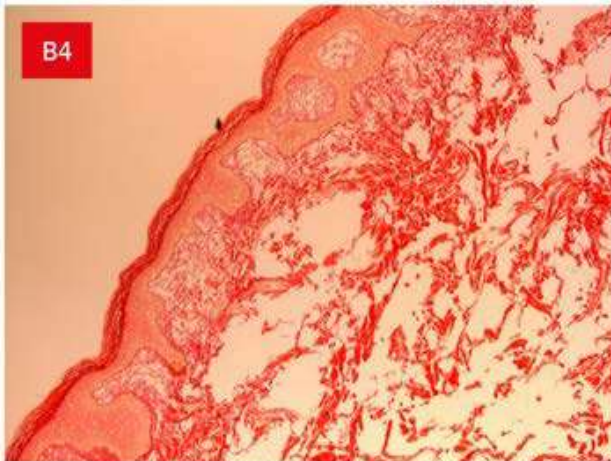
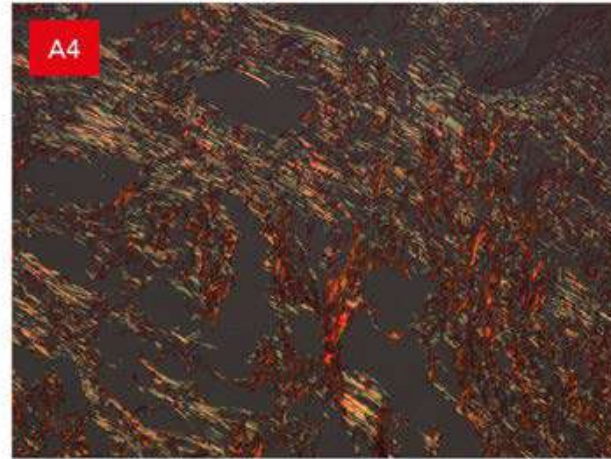
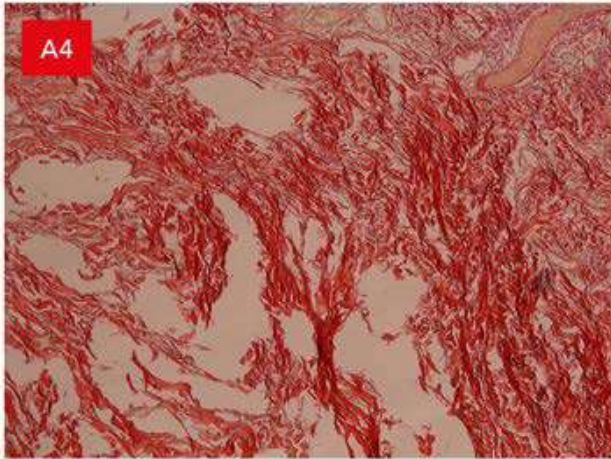
# Improvements in cellulite severity



# Peak total collagen gain with 1:1 CaHA:lidocaine dilution



# Picrosirius-red-stained histologic sections of dermis at 1:1 CaHA dilution



A4, CaHA alone  
B4, CaHA+MFU-V

# Patient satisfaction and treatment tolerability

## Satisfaction

- All women reported smoother skin
- 19/20 reported dimples less visible
- 19/20 (95%) were satisfied to very satisfied

## Tolerability

- MFU-V/CaHA was well tolerated with no severe bruising or severe pain
- All women had mild pain with a mean duration of 2 days
- 18 women had mild bruising which resolved within 1 week



# Conclusions

- MFU-V/CaHA treatment of skin laxity resulted in a significant improvement in cellulite appearance after one procedure
- Both treatments induce neocollagenesis and elastogenesis resulting in remodeling of the dermis and collagen structures in the superficial fascia
- Conversion from collagen type III to type I at 90 days was greater in tissue sections not subjected to MFU-V, suggesting that complete tissue remodeling may take longer with MFU-V
- Treatments were well tolerated; subject satisfaction was high
- MFU-V and CaHA at a 1:1 dilution ratio are an effective combination for improving skin laxity and cellulite severity in the buttocks and upper thighs