



UNIVERSITÀ  
DEGLI STUDI  
DI FERRARA  
- EX LABORE FRUCTUS -

**15° MEETING DI AGGIORNAMENTO SU ACNE E DERMATOSI CORRELATE**  
**LA SCUOLA DELL'ACNE**  
**Sabato 6 aprile 2019**

**UN CASO DI CICATRICI POST-ACNEICHE:  
COME IMPOSTARE L'APPROCCIO TERAPEUTICO**


*Pierantonio Zedde*

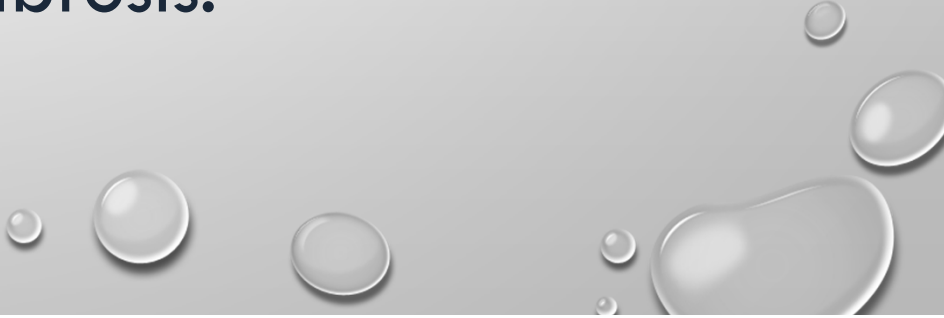


**ACNE SCARS** can be classified into two different types:

-Atrophic

-Hypertrophic

 Atrophic acne scarring originates from deep inflammatory reaction and involves the destruction or loss of connective tissue with dermal atrophy and fibrosis.



# CLINICAL CLASSIFICATION OF ACNE SCARS

## -MORPHOLOGIC



- Kadunc and de Almeida's (2003)
- Jacob, Dover and Kaminer's (2001)

## -QUALITATIVE



- Qualitative Global Scarring Grading System (Greg J. Goodman 2006)

## -QUANTITATIVE



- Quantitative Global Scarring Grading System (Greg J. Goodman 2006)
- SCAR-S (Tan JK 2010)
- SCARS (Assessment of Acne Scars Appearance and Severity, Drèno, Bettoli 2016)

# -MORPHOLOGIC CLASSIFICATION

*Dermatol Surg.* 2003 Dec;29(12):1200-9.

## Surgical treatment of facial acne scars based on morphologic classification: a Brazilian experience.

Kadunc BV<sup>1</sup>, Trindade de Almeida AR.

### Kadunc and de Almeida's Morphologic Classification of Acne Scars

Scars Types	Clinical Description
1. Elevated	
1a. Hypertrophic	Hypertrophic lesions raised above the skin surface and limited to the original injured area
1b. Keloidal	Usually found in patients with genetic predisposition; their dimensions exceed the initial injured tissue
1c. Papular	Soft elevations, like anetodermas, frequently observed on the trunk and chin area
1d. Bridges	Fibrous strings over healthy skin
2. Dystrophic	Irregular or star-like scar shapes with a white and atrophic floor
3. Depressed	
3a.1. Distensible retractions	Scars attached only by their central area after skin distension
3a.2. Distensible undulations (valleys)	Lesion that does not completely disappear after skin distension
3b.1. Nondistensible superficial	Shallow, dish-like defects
3b.2. Nondistensible medium	Crater-like, with a scar base that is relatively smooth, has normal color and texture, and has a wide diameter
3b.3. Nondistensible deep	Narrow and fibrotic scars, ice pick or pitted scars with sharp shoulders perpendicular to the skin surface that may appear as epithelial invaginations sometimes reaching the subcutaneous layer
3b.4. Tunnels	Two or more ice pick scars connected by epithelialized tracts

Source: Data from Kadunc BV and Trindade de Almeida AD. *Dermatol Surg.* 2003;29:1200-9.

# -QUALITATIVE CLASSIFICATION

## Postacne Scarring: A Qualitative Global Scarring Grading System

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GOODMAN AND BARON

GREG J. GOODMAN, FACD,\* AND JENNIFER A. BARON, MD†

**TABLE 1. Grades and Examples of Postacne Scarring**

Grade	Level of disease	Characteristics	Examples of scars
1	Macular disease	Erythematous, hyper- or hypopigmented flat marks visible to patient or observer irrespective of distance.	Erythematous, hyper- or hypopigmented flat marks
2	Mild disease	Mild atrophy or hypertrophy that may not be obvious at social distances of 50 cm or greater and may be covered adequately by makeup or the normal shadow of shaved beard hair in males or normal body hair if extrafacial.	Mild rolling, small soft papular
3	Moderate disease	Moderate atrophic or hypertrophic scarring that is obvious at social distances of 50 cm or greater and is not covered easily by makeup or the normal shadow of shaved beard hair in males or body hair if extrafacial, but is still able to be flattened by manual stretching of the skin.	More significant rolling, shallow "box car," mild to moderate hypertrophic or papular scars
4	Severe disease	Severe atrophic or hypertrophic scarring that is obvious at social distances of 50 cm or greater and is not covered easily by makeup or the normal shadow of shaved beard hair in males or body hair (if extrafacial) and is not able to be flattened by manual stretching of the skin.	Punched out atrophic (deep "box car"), "ice pick", bridges and tunnels, gross atrophy, dystrophic scars significant hypertrophy or keloid

# -QUANTITATIVE CLASSIFICATIONS

## Postacne scarring – a quantitative global scarring grading system

Greg J. Goodman<sup>1,2</sup> & Jennifer A. Baron<sup>3</sup> © 2006 Blackwell Publishing • *Journal of Cosmetic Dermatology*, 1

<sup>1</sup>*Skin and Cancer Foundation of Victoria*

<sup>2</sup>*Monash University Department of Community Medicine, Victoria, Australia*

<sup>3</sup>*Oregon Health & Science University, Portland, OR*

**Table 1** Global acne scarring classification.

(Grade) Type	Number of lesions: 1 (1–10)	Number of lesions: 2 (11–20)	Number of lesions: 3 (> 20)
(A) Milder scarring (1 point each) Macular erythematous or pigmented Mildly atrophic dish-like	1 point	2 points	3 points
(B) Moderate scarring (2 points each) Moderately atrophic dish-like Punched out with shallow bases small scars (< 5 mm) Shallow but broad atrophic areas	2 points	4 points	6 points
(C) Severe scarring (3 points each) Punched out with deep but normal bases, small scars (< 5 mm) Punched out with deep abnormal bases, small scars (< 5 mm) Linear or troughed dermal scarring Deep, broad atrophic areas	3 points	6 points	9 points
(D) Hyperplastic Papular scars	2 points	4 points	6 points
(D) Hyperplastic Keloidal/hypertrophic scars	Area < 5 cm <sup>2</sup> 6 points	Area 5–20 cm <sup>2</sup> 12 points	Area > 20 cm <sup>2</sup> 18 points

## Development and validation of a Scale for Acne Scar Severity (SCAR-S) of the face and trunk.

Tan JK<sup>1</sup>, Tang J, Fung K, Gupta AK, Richard Thomas D, Sapra S, Lynde C, Poulin Y, Gulliver W, Sebaldt RJ.

Acne Scar Severity Score (SCAR-S), to be Independently Applied to the Face, Chest, and Back; the Overall Scar Score is the Sum of Scores from Each of these Three Sites

Category	Score	Description
Clear	0	No visible scars from acne
Almost clear	1	Hardly visible scars from 2.5 m away
Mild	2	Easily recognizable; less than half the affected area (e.g., face, back, or chest) is involved
Moderate	3	More than half the affected area (e.g., face, back, or chest) is involved
Severe	4	Entire area is involved
Very severe	5	Entire area with prominent atrophic or hypertrophic scars

Source: From Tan JK et al. *J Cutan Med Surg.* 2010;14:156-60, with permission.

# New Patient-Oriented Tools for Assessing Atrophic Acne Scarring

Alison Layton · Brigitte Dréno · Andrew Y. Finlay · Diane Thiboutot ·  
 Sewon Kang · Vicente Torres Lozada · Valerie Bourdès ·  
 Vincenzo Bettoli · Laurent Petit · Jerry Tan

To view enhanced content go to [www.dermtherapy-open.com](http://www.dermtherapy-open.com)  
 Received: December 7, 2015 / Published online: February 17, 2016

Table 2 continued

Almost none of my face	A little of my face	Some of my face	A lot of my face	Almost all of my face
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. When looking at your face in the mirror <u>right now</u> , how small or large do the individual indents or holes look?				
Very small	Small	Moderate	Large	Very large
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
3. When looking at your face in the mirror <u>right now</u> , how many indents or holes do you see?				
Very few indents or holes	A few indents or holes	Some indents or holes	Quite a lot of indents or holes	Many indents or holes
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
4. When looking at your face in the mirror <u>right now</u> , how deep do the individual indents or holes look?				
Not at all deep	A little deep	Moderately deep	Very deep	Extremely deep
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
5. When looking at your face in the mirror <u>right now</u> , how visible are the indents or holes to you?				
Not at all visible	A little visible	Moderately visible	Very visible	Extremely visible
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Table 2 SCARS patient-reported outcome tool

## Assessment of Acne Scar Appearance and Severity: Part 1

Please remove all make-up and facial jewelry/piercings, and tie back any loose hair covering your face before answering this questionnaire.

Please begin by answering the questions below. These questions will help you understand the difference between active acne and atrophic acne scars.

a) Active acne includes zits, breakouts, pimples, whiteheads, and blackheads.

When looking at your face in the mirror right now, do you see zits, breakouts, pimples, whiteheads, or blackheads?

Yes / No (please circle one)

If yes, please rate the severity of the zits, breakouts, pimples, whiteheads, or blackheads on your face by putting a vertical line in the place that best describes your acne.

No active acne

0

Very severe active acne

10

The following question asks you about atrophic acne scars only. Please do not consider active acne (zits, breakouts, pimples, whiteheads, or blackheads), scabs, or flat red or dark marks.

b) Atrophic acne scars are indents or holes in the skin from previous active acne (not from injury, scratching or picking).

When looking at your face in the mirror right now, do you see indents or holes in the skin from previous active acne?

Yes / No (please circle one)

If you answered "No" for this question, you have completed this questionnaire. Thank you for your time.

If yes, please rate the severity of the indents or holes on your face by putting a vertical line in the place that best describes your scars.

No indents or holes

0

Very severe indents or holes

10

## Assessment of Acne Scar Appearance and Severity: Part 2

The following questions ask you about atrophic acne scars only. Remember, atrophic acne scars are indents or holes in the skin from previous active acne. Please do not consider active acne (zits, breakouts, pimples, whiteheads, or blackheads), scabs, or flat red or dark marks.

Please read each question, then look in the mirror and think about the indents or holes on your whole face, and then answer the question. Please mark an "X" in the box (☐) that best describes how the indents or holes on your face look RIGHT NOW.

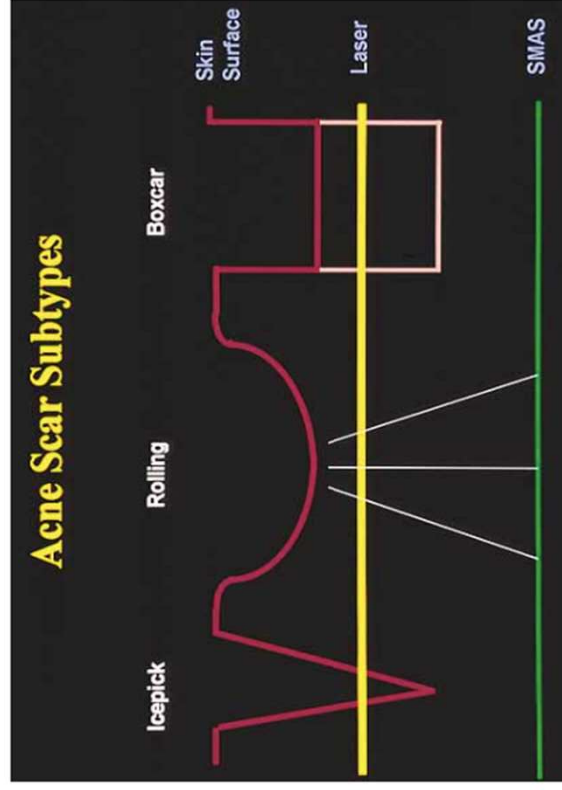
There are no right or wrong answers to these questions. If you want to change your answer, please cross out your original answer and mark an "X" in the correct box.

Please choose only one response.

1. When looking at your face in the mirror right now, how much of your face looks covered by indents or holes?

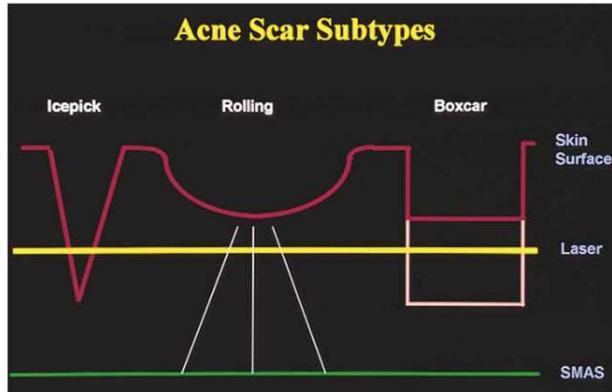
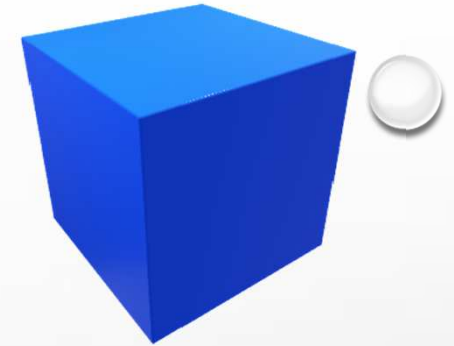
## Acne scarring: A classification system and review of treatment options

Carolyn I. Jacob, MD,\* Jeffrey S. Dover, MD, FRCP, and Michael S. Kaminer, MD  
Boston, Massachusetts



**Fig 1.** A novel classification system: 3 basic scar types—icepick, rolling, and boxcar (superficial and deep). *Yellow reference line* denotes depth of ablation and resurfacing capability of the CO<sub>2</sub> laser. *Green line* represents superficial musculoaponeurotic system to which fibrous bands adhere, creating rolling scars.

# DEEP SCAR



**Fig 1.** A novel classification system: 3 basic scar types—icepick, rolling, and boxcar (superficial and deep). *Yellow reference line* denotes depth of ablation and resurfacing capability of the CO<sub>2</sub> laser. *Green line* represents superficial musculoaponeurotic system to which fibrous bands adhere, creating rolling scars.



They may be shallow (0.1-0.5 mm) or deep ( $\geq 0.5$  mm) and are most often 1.5 to 4.0 mm in diameter (Fig 4).



Consider the depth in order to draw up a treatment algorithm

# TREATMENTS FOR ACNE SCARS: THERAPEUTIC AREAS

## (1) DEEP :

- C.R.O.S.S. (CHEMICAL RECONSTRUCTION OF SKIN SCARS) TCA
- SURGICAL TECHNIQUES:
  - PUNCH TECHNIQUES ⇒ -ELEVATION  
-GRAFTING
  - SUBCISION
  - EXCISION

## FILLERS



## (2) SHALLOW:

- PEELING
- LASER
- SKIN NEEDLING
- DERMABRASION



## SCARS MANAGEMENT:

CONSIDER:

- % OF DEEP SCARS:

SHALLOW:

DEEP:

- LOCALIZATION

- MORPHOLOGY

- DIAMETER



C.R.O.S.S.



C.R.O.S.S.



# TCA PEELING



# GRAZIE PER L'ATTENZIONE

