

TRATAMIENTO DEL MELASMA CON Q-SWCHITED ND:YAG

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Clinical and Histopathologic Assessment of Facial Melasma After Low-Fluence QS Nd:YAG Laser

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TABLE 1. Demographic Characteristics of Subjects

Subject Id	Age (yrs)	Baseline	Post-application	mMASI		
				1 mo	3 mo	6 mo
1	38	12.0	8.0	8.0	12.0	12.0
2	27	5.4	3.6	5.4	5.4	5.4
3	36	7.6	3.9	3.9	7.6	7.6
4	58	1.2	0.6	0.6	1.2	1.2
5	44	5.1	2.7	2.7	2.7	2.7
6	57	5.5	2.8	3.5	8.3	6.3
7	73	14.4	7.7	10.8	10.8	10.8
8	59	10.5	6.3	10.5	10.5	10.5
9	45	4.8	1.5	5.7	6.6	5.4
10	49	10.5	7.0	10.5	10.5	10.5
11	48	17.1	10.7	18.8	18.8	18.8
12	44	8.2	2.5	4.6	10.9	8.2
13	36	2.9	1.9	1.9	1.9	1.9
14	45	6.0	1.8	6.0	6.0	6.0
15	37	9.3	5.8	5.8	9.3	9.3
16	58	5.1	2.4	4.2	4.2	3.3
Mean (SD)*	47.1 (11.6)					
17	32	10.8		Lost follow-up at 4th laser session		
18	44	5.4		Lost follow-up at 6th laser session		
19	37	6.6		Lost follow-up at 6th laser session		
20	40	8.2		Lost follow-up at 2nd laser session		

*SD, standard deviation. Subjects 17 to 20 were excluded from statistical analysis.

Métodos

10 sesiones semanales de Q-switched: NdYASG 1064 nm de baja fluencia. Se midió la respuesta con el MASI modificado

Se midió respuesta a la semana, 1, 3 y 6 meses posterior al tratamiento.

Se tomó biopsia (10) para cuantificar la melanina epidérmica y comprar antes y después del tto

Parámetros: Spot 8 mm, fluencia 0.8 to 1.6 J/cm², Fr de pulso 10 Hz.

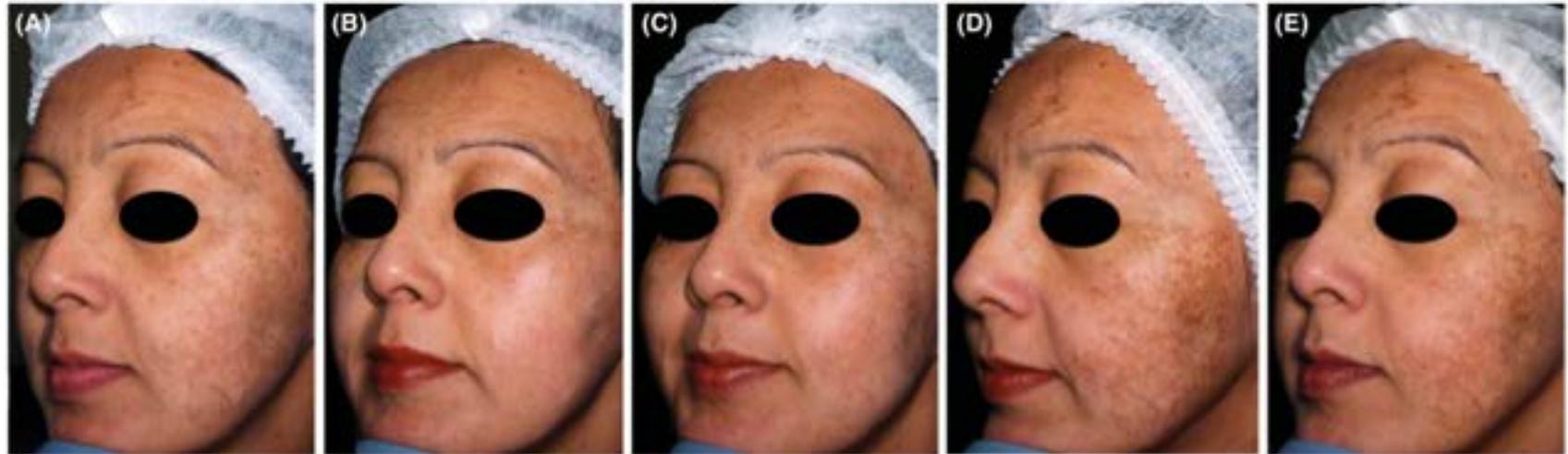


Figure 1. Follow-up clinical pictures. (A) Baseline mMASI: 8, 2, (B) 1 week after last treatment mMASI: 2, 5, (C) at 1-month follow-up mMASI: 4, 6, (D) at 3-month follow-up mMASI: 10, 9, (E) at 6-month follow-up mMASI: 8, 2. The laser settings used in the treatment sessions: Spot size: 8 mm; fluence: 1, 3 J/cm²; and pulse repetition rate: 10 Hz.

Tasa de recurrencia del 81%
No como tto único

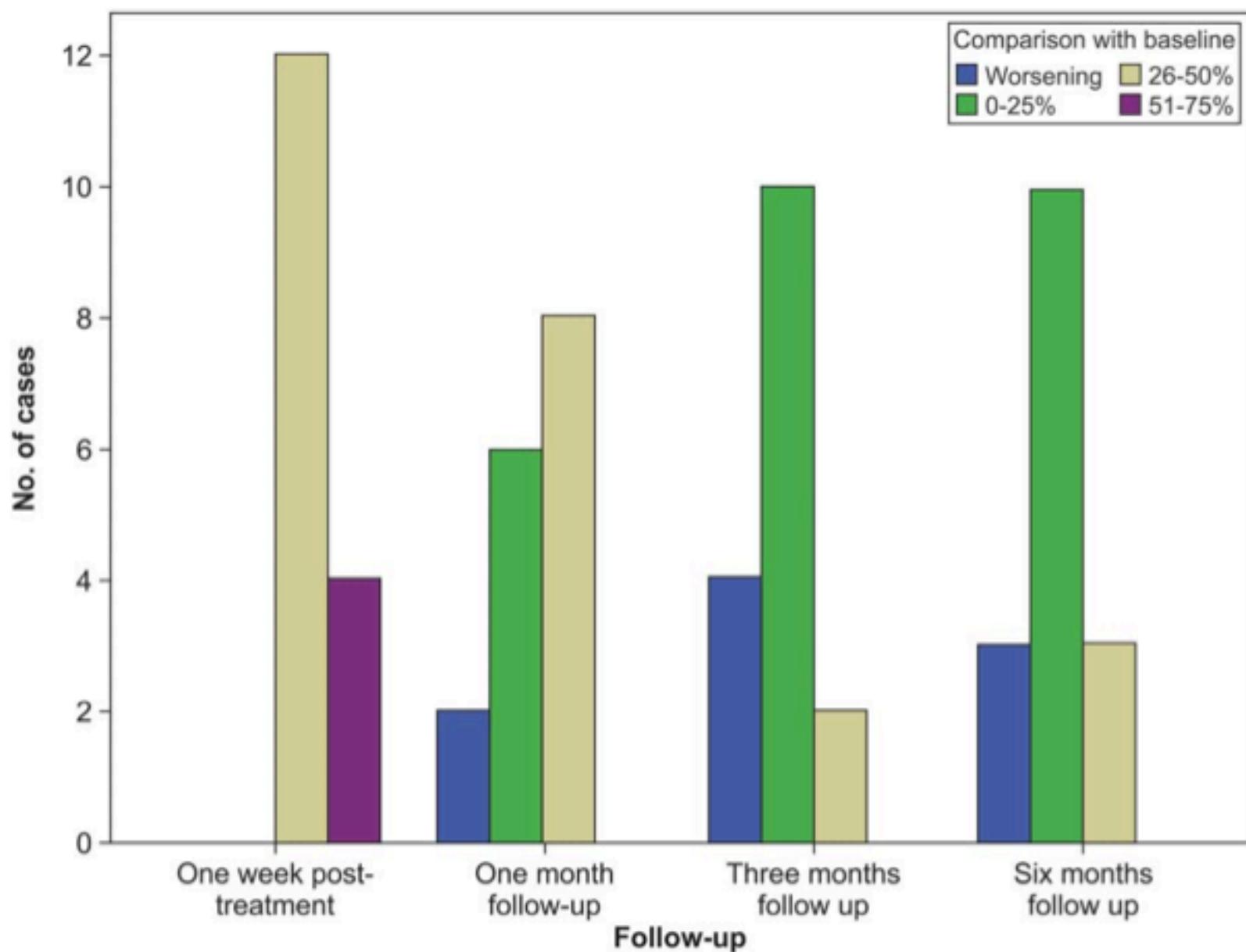


Figure 2. Patient distribution during follow-up according to the mMASI improvement scores.

TABLE 2. Comparison Between Baseline and Follow-up mMASI Score (1 Month, 3 Months, and 6 Months After Procedure)

<i>N</i> = 16	<i>Mean (SD)†</i>	<i>Median</i>	<i>p*</i>
Baseline	7.85 (4.24)	6.80	
Postprocedure	4.33 (2.89)	3.20	<.001
1 mo after procedure	6.43 (4.48)	5.55	.013
3 mo after procedure	7.92 (4.49)	7.95	.779
6 mo after procedure	7.49 (4.51)	6.95	.001

*Wilcoxon signed-rank test for paired data.

†SD, standard deviation; mMASI, modified Melasma Area and Severity Index.

Histopatología

Se evidencia una disminución leve, no significativa ($p=0.305$) en el depósito de la melanina en todas las capas de la epidermis 1 semana posterior al tto

ORIGINAL ARTICLE

Efficacy and safety of fractional Q-switched 1064-nm neodymium-doped yttrium aluminum garnet laser in the treatment of melasma in Chinese patients

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Métodos

Pacientes con fototipo III-IV

27 pctes, 8 sesiones cada 2-3 sem, seguimiento de 3 meses

Fotografías antes y después

MASI antes y 4 semanas después de la última sesión

Índice de melanina e índice de eritema, y PGA (MD y pctes)

Se evaluó tasa de recurrencia

Parámetros de tratamiento

Fractional Q-Switched Nd:YAG laser (Pixel Nd:YAG laser handpiece, Harmony XL, Alma Lasers Ltd. Caesarea, Israel) de 1064 nm, spot de 8.5*8.5 mm con 25 dots. Diámetro de cada punto es de 1.25 mm, área de cobertura 42.4 %.

Fluencia 800 to 1100 m J/P (aprox 2.6-3.6 J/cm²). Fr 2 Hz

Resultados

MASI disminuyó de 12.84 a 7.29 después del tto (p=0.000).

70% pctes tuvieron mejoría clasificada como buena

Indice de melanina disminuyó de 56.52 a 32.7 (p=0.000)

PGA fue de 3.76 indicado un aclaramiento moderado de las lesiones

Recurrencia fue del 40% a 3 meses de seguimiento

No eventos adversos

Table 1 Improvement rates of MASI after treatment

	Remarkable	Good	Moderate	Mild	No change
	>75 %	50–75 %	25–50 %	<25 %	0
Number of patients (%)	1 (4 %)	10 (37 %)	9 (33 %)	7 (26 %)	0

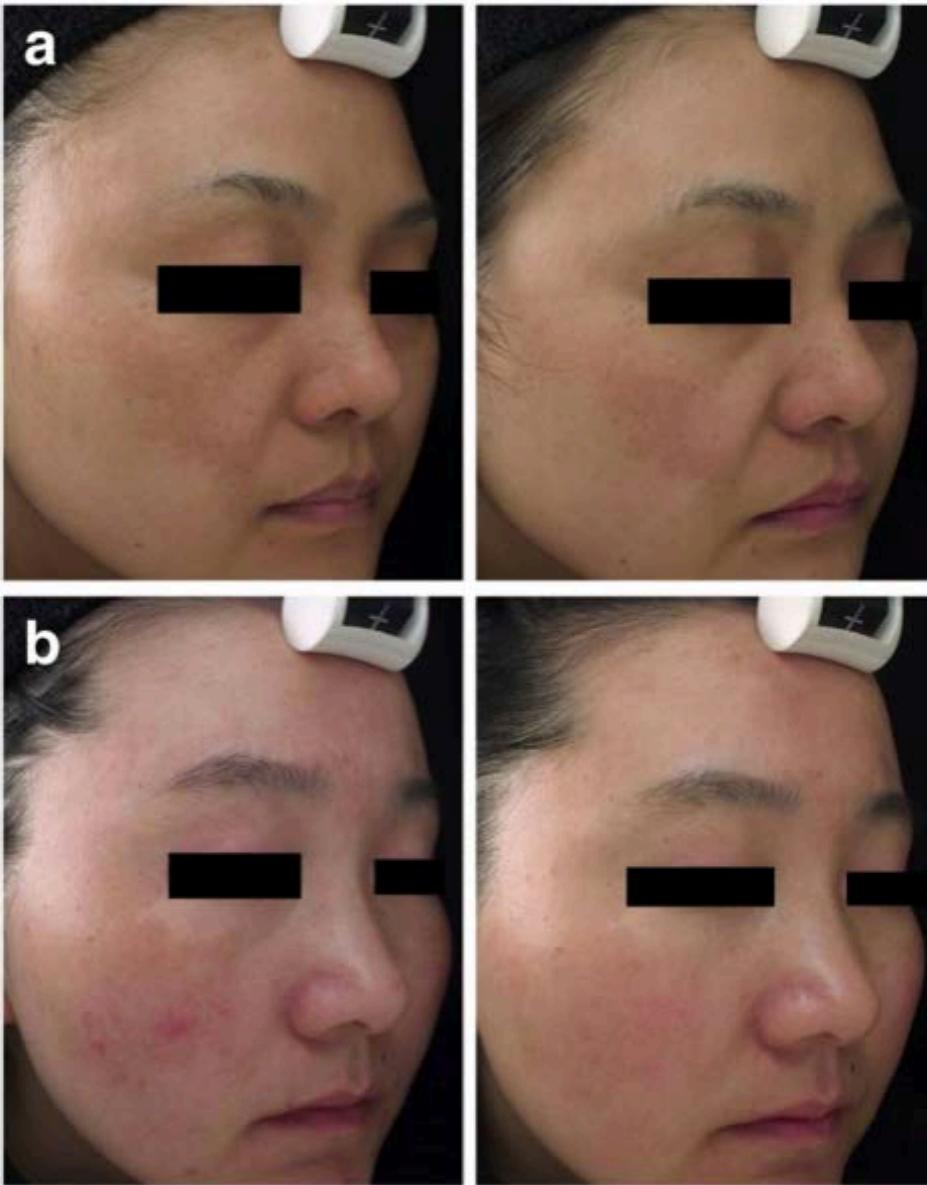


Fig. 1 **a** Significant improvement was observed after eight treatment sessions. **b** Improvements were observed both on hyperpigmentation and vasculature

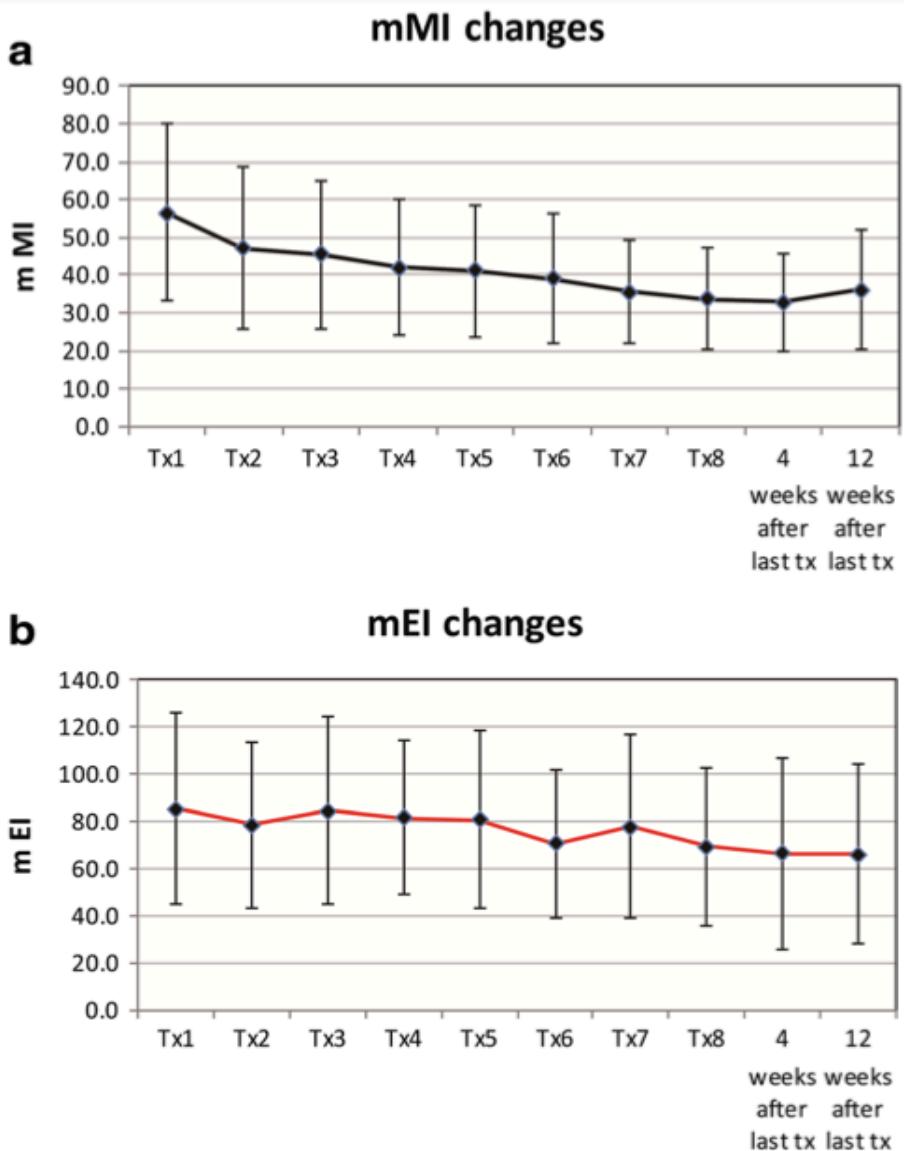


Fig. 2 **a** The mean MI decreased during and 4 weeks after the therapy. A slight increase was detected at 12 weeks after the last treatment. **b** The mean EI declined 4 weeks after the therapy, and there was no obvious increase at 12 weeks after the last treatment

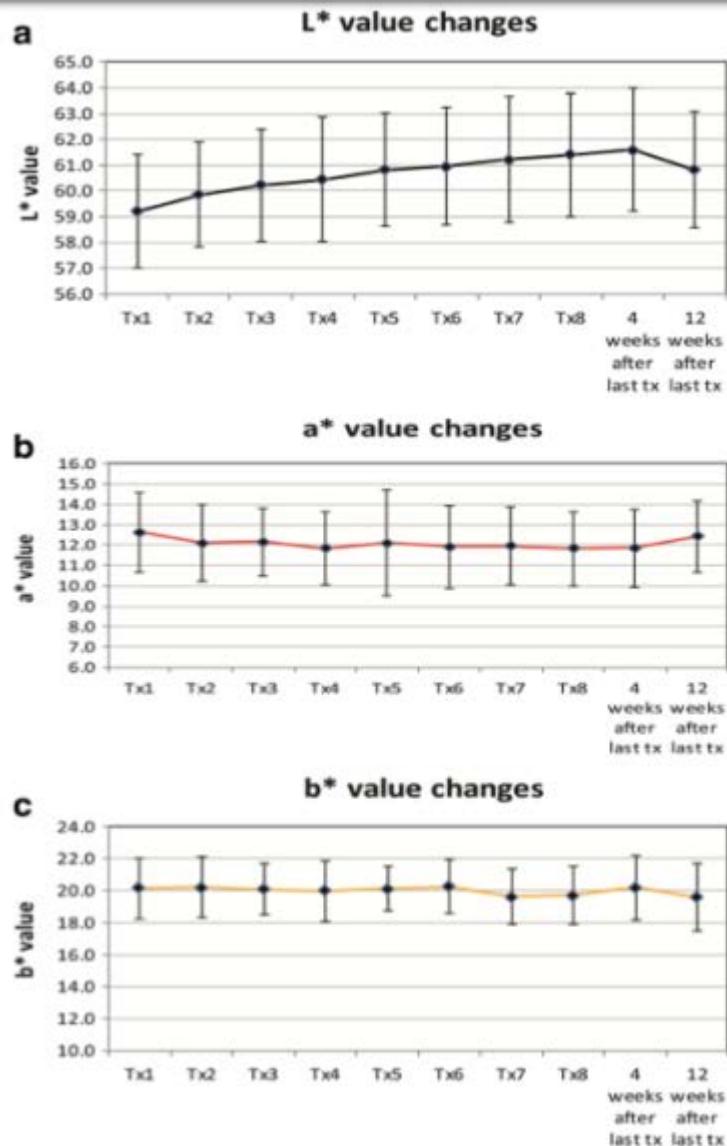


Fig. 3 **a** The mean L value increased during the therapy and 4 weeks after the treatment. It decreased slightly 12 weeks after the treatment but still higher than that of the baseline. **b** The mean a value decreased 4 weeks after the treatment while increased slightly 12 weeks after the treatment but still lower than that of the baseline. **c** The mean b value had almost no change during and after the treatment

Long-term results in low-fluence 1064-nm Q-Switched Nd:YAG laser for melasma: Is it effective?

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Métodos

34 pacientes

8 sesiones (6-10)
cada 2 semanas

Parámetros: spot 6
mm y fluencia de
2.5 J/cm²con
múltiples pases

Fotografías, MASÍ,
encuesta de
satisfacción al pcte
después del último
tto y 1 año después

Resultados

MASI disminuyó de 6.7 a 3.2 ($p<0.001$)

58.8% pctes tuvieron al menos una reducción del 50%.

Al año recurrencia del 58.8% y el MASI aumentó de 3.2 a 5.8

Mejoría pero con alta recurrencia

Table 1 Patient demographics

Characteristic	Values
Age [years; mean \pm SD (range)]	39.6 \pm 7 (26–62)
Fitzpatrick's phototype [<i>n</i> (%)]	
Type II	3 (8.8)
Type III	16 (47.1)
Type IV	15 (44.1)
Association with sun exposure [<i>n</i> (%)]	25 (73.5)
Association with medication [<i>n</i> (%)]	
Oral contraceptives	5 (14.7)
Pattern of melasma	
Centrofacial [<i>n</i> (%)]	18 (52.9)
Malar [<i>n</i> (%)]	13 (38.2)
Mandibular [<i>n</i> (%)]	3 (8.8)
Duration of melasma [years; mean \pm SD (range)]	4.5 \pm 2.88 (1–11)

SD, Standard deviation.

Table 2 The mMASI scores before and after treatment

	mMASI		
	Mean \pm SD	Range	P
Before treatment	6.71 \pm 3.31	1.2–15	
After treatment	3.2 \pm 1.61	0.3–6	<0.01*
1 year after the last treatment	5.8 \pm 1.92	0.5–11.2	>0.01

SD, Standard deviation.

*Significant.

Table 3 Patient satisfaction

	After treatment n (%)	1 year after the treatment n (%)
No change or worse \leq 0%	2 (5.9)	6 (17.6)
Slight lightening (poor) 1–25%	2 (5.9)	8 (23.5)
Moderate lightening (fair) 26–50%	10 (29.4)	12 (35.2)
Marked lightening (good) 51–75%	16 (47)	6 (17.6)
Near-normal skin (excellent) (76–100%)	4 (11.8)	2 (5.9)



Figure 1 Patient 1 before (a), after six sessions of low-fluence 1064-nm QS-Nd:YAG laser treatment (b), and 1 year after the last treatment (c).



Figure 2 Patient 2 before (a), after 10 sessions of low-fluence 1064-nm QS-Nd:YAG laser treatment (b), and 1 year after the last treatment (c).



Figure 3 Patient 3 before (a), after six sessions of low-fluence 1064-nm QS-Nd:YAG laser treatment (b), and 1 year after the last treatment (c).

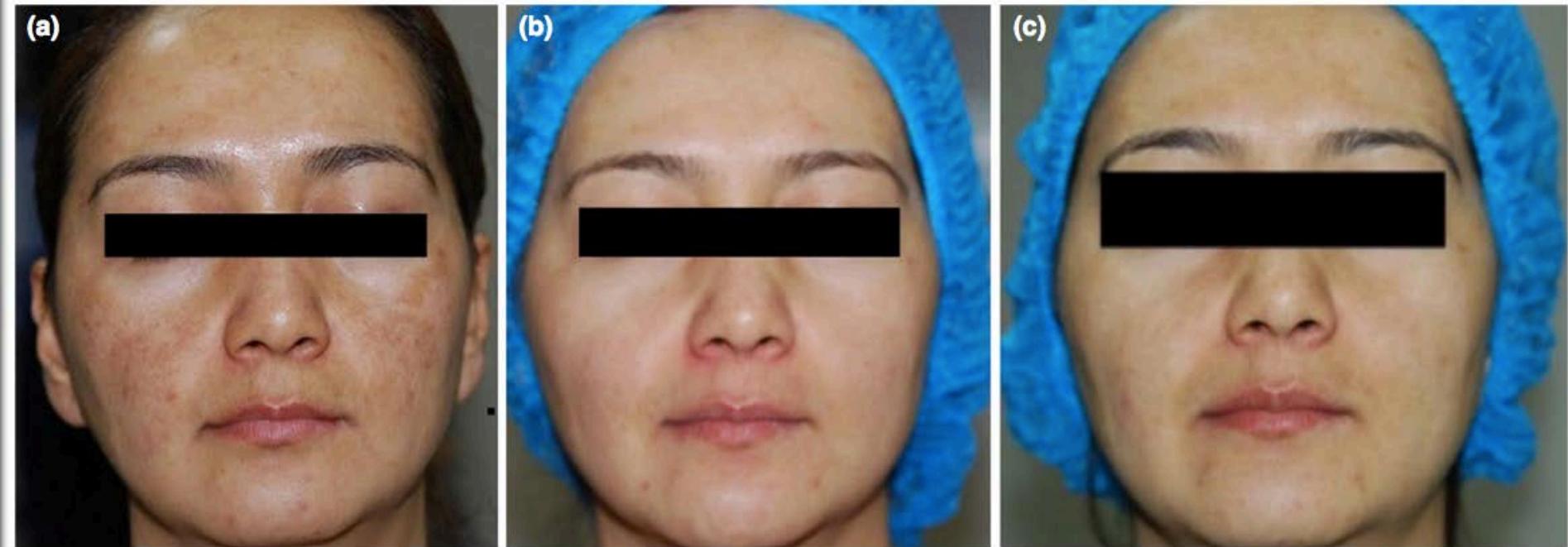


Figure 4 Patient 4 before (a), after eight sessions of low-fluence 1064-nm QS-Nd:YAG laser treatment (b), and 1 year after the last treatment (c).

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