Treatment of Melasma with Topical Agents, Peels and Lasers: An Evidence-Based Review

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Abstract

Background

Objective

Methods

Results

1.2

1.3

2 Objective

3 Methods

4 Results

4.1

Table 1

1983 [9]		3 %	53	96.2 %	
1991 [10]		4 %	243	65 %	
1993 [21]		0.1 %	38	68 %	24 88 %
1994 [22]		0.1 %	28	32 %	24 (67 %)
., 1995 [11]		2 % 20 % 24	300	68.9 % 43.7 %	36.5 % 12.7 %
., 1999 [23]		0.05 %	23	68.2 % 60 % 47 % 34 %	27 % 0 %
2000 [8]		4 % 15) 15) 12 30	45	38 % 8 %	

Table 1 [illegible]

[illegible]	[illegible]	[illegible]	[illegible]	[illegible]
[illegible] 2003 [14]	[illegible] 12 [illegible] 8 [illegible] 12 [illegible]	29	[illegible] 4.60 [illegible] 2.78 [illegible] 4.45 [illegible] 3.87 [illegible]	[illegible]
[illegible] 2004 [18]	[illegible] 5 % [illegible] 12 [illegible] 12 [illegible] 60 [illegible]	26	[illegible] 18.5 % [illegible] 13.5 % [illegible] 6.9 % [illegible] 1.03 % [illegible]	[illegible]
[illegible] 2006 [17]	[illegible] 3 [illegible]	27	[illegible]	[illegible]
[illegible] 2007 [15]	[illegible] 1 [illegible] 0.3 % [illegible] 12 [illegible] 2 [illegible] 3 [illegible] 16, 20, [illegible] 24 [illegible] 60 [illegible]	28 [illegible] 1 [illegible] 26 [illegible] 2	[illegible] 1 [illegible] 2 [illegible]	[illegible] (78 %) [illegible]
[illegible] 2010 [16]	[illegible] 4- [illegible] 0.1 % [illegible] 8 [illegible]	23	[illegible] 4- [illegible]	[illegible] 60 % [illegible] 8 [illegible]
[illegible] 2011 [26]	[illegible] 75 % [illegible] 4 [illegible] 8 [illegible]	50	[illegible] 8 [illegible]	[illegible] 75 % [illegible] (4) [illegible] (12). [illegible]

Table 1

[illegible], 2012 [24]	[illegible] 5 % [illegible] 12 [illegible]	21	[illegible] 12 [illegible]
[illegible], 2012 [27]	[illegible] 1 ([illegible]) 2 ([illegible]) 3 [illegible] 4 [illegible] 7 [illegible] 14 [illegible] 15 [illegible]	96	[illegible] 100 % [illegible]

Giga [illegible] *Thi* [illegible], *MASI* [illegible], *MELASQOL* [illegible], *SPF* [illegible]

[illegible] (80.7 %). [illegible] 1991, [illegible] [10] [illegible] 4 % [illegible] 20 % [illegible] 72 % [illegible] 65 % [illegible] [11] [illegible] (2 %) [illegible] 20 % [illegible] 68.9 % [illegible] 43.7 % [illegible] 2 % [illegible] (36.5 %) [illegible] (12.7 %). [illegible] [12] [illegible] 20 % [illegible] 4 % [illegible] 2 [illegible] (3.8 ± 2.8 [illegible] 6.2 ± 3.6 [illegible]). [illegible] 8 [illegible]

[illegible] [13] [illegible] 5 % [illegible] 4 % [illegible] [14] [illegible] (*L*) [illegible] (4.60 [illegible] 2.78) [illegible] (4.45 [illegible] 3.87). [illegible]

4.2.2 Re[illegible]id The[illegible]a[illegible]ie

4.2.3 O[illegible]he[illegible] T[illegible]ica[illegible] The[illegible]a[illegible]ie

Table 2

1999 [32]	2 % … 2 % … 10 % … 10 % … 2 % … 12 … 15	40	60 % … 50 % … 47.5 % … 10 % … 2 %	
2002 [25]	(…) 2 % … 0.05 % … 2 % … 0.05 % … 2 % … (…) … 6 … 15	47	31.1 %, … 2 % … 14.6 % … 43.7 % … 12.5 %	
2003 [31]	4 % … 10 % … 12 … 12	35	… 75 % … 13 %	
2003 [28]	(… 4 %, … 0.05 %, … 0.01 %) … 8	641	26.1 % … 4.6 % … 70 % … 75 % … 30 %	
2004 [13]	5 % … 4 % … 16	16	93 % … 62.5 %	(68.7 %) … (6.2 %)
2008 [29]	(… 4 %, … 0.05 %, … 0.01 %) … 8 … 4 % … 8	260	64.2 % … 39.4 % … 70.8 % … 49.6 %	

Table 2

2012 [30]	6- ... 4 %, ... 0.05 %, ... 0.01 %) ... 3 × / ...), 1/ ...), 2/	242	53 %	190
2011 [12]	4 % ... 20 % ... 8	29	8	

MASI ..., *SPF* ..., *TC* ...

... 8- ... [26] ... 75 % ... 8 ... 4- ... [27] ... 100 % ...

4.2.4 C bi ati C ea

... (2). ... 4 % ... 0.05 % ... 0.01 % ... [28] ... (4 % ... + 0.05 % ..., 0.05 % ... + 0.01 % ... 4 % ... + 0.01 % ...) ... 8 ... 26.1 % ... 9.5 % ... 1.9 % ... 2.5 % ... 77 % ... 46.8 % ... 40 % ... [29] ... 4 %, ... 0.05 %, ... 0.01 %) ... 4 % ...

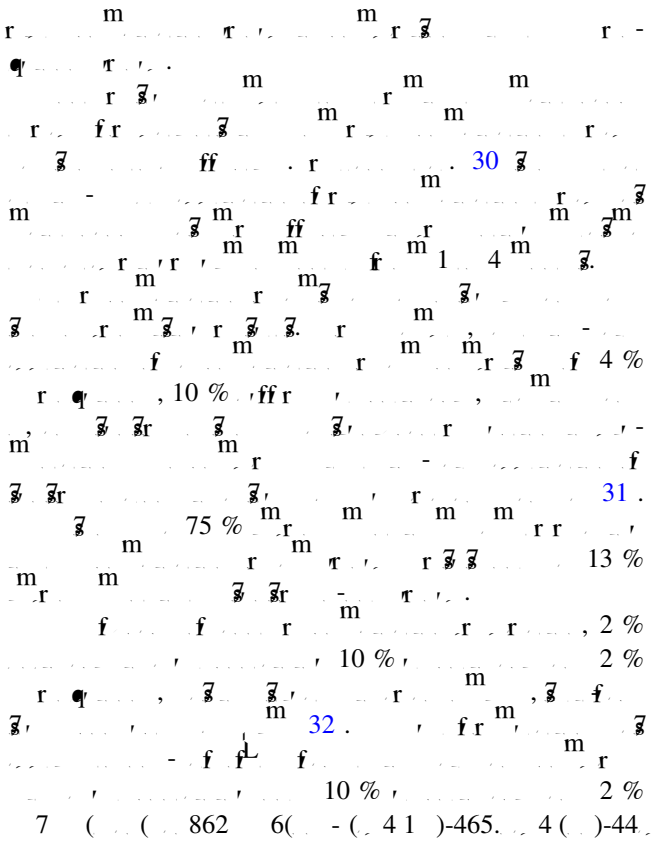

Table 3

MASI

Table 4

., 2004 40		4 %	31	39.8 %	
., 2010 43		1,064	22	92.5 % 75.9 %	
., 2010 48		4 5 - 1,550	29		31 %
., 2011 49		1,550	22	3	
., 2011 41		2 6	56	10, 57 %	
., 2011 46		(4 %, 0.05 %, 0.01 %)			

Table 4

2011 44		1,064 ... 1 2 ... 30 % ... 2- ... (6 ...). ... 5 ...	16	... 32.6 % ... 37.4 % ... 22 % ... 16.7 % ...	[illegible]
2012 47		... 1,550- ... 5 % ... 12	18	4 ... 12 ...	[illegible]
2012 45		... 2- ... 2- ... 12 ... 12- ...	60	[illegible]	12- ...
2012 42		12 ... 6	62	... 49.4 % ... 6 ... 44.9 % ... 12 ... 6 ...	... 2 ...

FLT ..., *IGA* ..., *IPL* ..., *MASI* ..., *MASI* ..., *PDL*

(4).

4.4.1 Intense Pulsed Light

16- . 40 4 % 4 % 39.8 % 11.6 % , 35 % 14 % 24.2 % 10- , . 41 4 %, 0.05 % 0.01 %. 10, 57 % 23 % , . 42 49.4 % 6 44.9 % 12 6 . 7- 2 .

4.4.2 Q-Switched Neodymium-Doped Yttrium Aluminium Garnet (QS-Nd:YAG) Laser

43 , 1,064 - 1- 2 % 92.5 % 19.7 % 75.9 % ( ) 24 % 12- 6- , . 44 , 1,064 - 30 % , 2- - 32.6 % 22 % , 37.4 % 16.7 % . 45 , 2- 2- 12- .

4.4.3 P ed-D e La e

[illegible]

4.4.4 F act i a Ph t the i

[illegible]

g , g, , g g , m - , , g, r , r g , r ¶ , g r r m , r g ff g f f r r f m g . , r g - r f r m g g , , r ¶ r , g r r (r m r). r r , g g , m r f r, g, g m f - , g m , f m m f g , g f f f m g g r , r g r m f m g m g g g . m g g r , r g r m r g g, m r g r g f rr g g ¶ r , , r , r r r - g , g. g m m f r m m m g r , g g f - r . r , r g , f , f g m f r m f r r , ff r g f , r .

Acknowledgments g r g f f , , r , g m m r r g r . r m r g g , f g r f r g , m r g r g m . , r g r g f r g r r r f g r .

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30. [illegible] 2012 26(5) 611 8.