

Since this is a very extensive table, the format and content has not been edited by ActaDV.

Table SI. Summary of a systematic review of light and laser

Author, Year	Study design	No. of patients	Clinical findings	Previous therapy	Pretreatment / Concomitant therapy	Light specification					Number of sessions; Interval	Results	Side effects
						Type	Filter (nm)	Pulse duration (msec)	Interpulse delay (msec)	Fluence rate/Dose (J/cm ²)			
Picollo et al, 2014(1)	case series	1	3 painful, firm, and vascularised nodules on ear	Intralesional corticosteroid	None	IPL	500	5-10	10	12-16	Up to 4; 20-30 days	Significant reduction of vascular component and consistency; pain disappearance	none
Rosende et al, 2012(2)	case report	1	Popular erythematous-violaceous plaques on elbows, knees, and dorsum of the nose	Topical and intralesional corticosteroids; chloroquine (control of the lesions on elbows and knees); hydroxychloroquine, MTX, allopurinol	Nd:YAG-Laser (1064nm)	IPL	590	2.8	20	37-45	n.d.	Complete improvement; no signs of recurrence after 2 years	n.d.
Hasegawa et al, 2011(3)	case report	1	Multiple 1-2 cm small red-brown indurated facial plaques	Topical corticosteroid, cryotherapy	Topical 20% 5-ALA	PDT – intense pulsed light	640	4	20	22-24	5; 14 days	Improvement; no signs of recurrence after 6 months	n.d.
Gleeson et al, 2011(4)	case series	6	Papules, plaques, nodules, annular lesions and lupus pernio	All cases with prednisolone (0.5 mg/kg) and topical clobetasol propionate and tacrolimus 0.1%; 4 cases with intralesional corticosteroid; some cases with hydroxychloroquine, mepacrine, doxycycline, allopurinol, and MTX	All cases with topical gel PUVA (methoxypsoralen-8 gel 0.005%); 5 cases with prednisolone 0.5mg/kg; 1 case with prednisolone 0.2 mg/kg 2 cases with hydroxychloroquine and allopurinol	UVA	n.d.	-	-	Initial 0,2, with daily dose increments of 0.1 – 0.2 J/cm ² ; max. 3.7 J/cm ²	Mean of 50; Initial 2 times weekly, followed by weekly intervals	3 patients with complete improvement, 3 patients with 50% improvement; benefit maintained at follow-up (4 months – 3 years)	none

Penrose et al, 2011(5)	case report	1	Multiple red-brown papules coalescing to confluence on nose	Topical, intralesional, and systemic corticosteroid	Topical 20% 5-ALA	PDT -blue light illuminator (BLU-U)	417	16min and 40s	-	10	10; 14 days	Some recurrence after 3 months	Hyperpigmentation and superficial desquamation
Patterson, 2009(6)	case report	1	Reddish brown and annular plaque with induration at periphery and central atrophy on right forehead	Topical and intralesional corticosteroid, tacrolimus 0.1%, azathioprine	Topical 5-ALA	PDT – non-coherent light source (LED)	633	Fractionated dose regime*	n.d.	75	7; 6-8 weekly	Clearly entirely improvement	Mild discomfort, headache
Wilsmann-Theis et al, 2008(7)	case series	2	case 1: large red-brown indurated tumor at the internal angle of the eye; case 2: indurated, erythematous swelling of the right ear	case 1: systemic corticosteroid, hydroxychloroquine; case 2: systemic corticosteroid, doxycycline	Methyl aminolevulinate (Metvix®)	PDT – case 1: red light (Aktilite®); case 2: broad band light (PhotoDyn 501®)	case 1: 630 case 2: 590-780	case 1: 8min and 49s case 2: 20min	-	case 1: 37 case 2: 38	case 1: 8; once a week for 6 weeks, followed by once a month for 2 months case 2: 8; 14 days	case 1: complete improvement; no relapse after 4 months case 2: complete improvement; no relapse after 6 months	case 1: pricking sensation

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Kondo et al, 2005(8)	case report	1	Diffuse swelling around flexor tendons of the right middle finger, extended to the forearm	Surgical excision, systemic corticosteroid, MTX	10% ALA was injected into tendon sheath	PDT – excimer dye laser (pulsed laser light)	630	n.d.	n.d.	100	6; n.d. (total of 600 J/cm ²)	Reduction of swelling; no recurrence at 2-years follow-up	n.d.
Mahnke et al, 2004(9)	case report	1	Multiple, painless, red-brown, elevated, partially confluent papules and plaques on the	Topical corticosteroid, tacrolimus	none	UVA1	n.d.	n.d.	-	Initial 20 J/cm ² for 3 sessions; 40 J/cm ² for 12 sessions	50; 4 times weekly	Nearly all lesions disappeared	none

			whole body							and 60 J/cm ² for 35 sessions			
Karrer et al, 2002(10)	case report	1	Numerous painless, red-brown, slight elevated papules and plaques on legs and upper arms	Topical, intralesional, and systemic corticosteroid; cryotherapy; topical vitamin E; clofazimine, allopurinol, bathwater PUVA	3% ALA gel containing 40% dimethyl sulfoxide	PDT – non-coherent light source	580-740	n.d.	-	20	22; Initial 2 times/week, followed by weekly intervals	Complete improvement	Burning sensation, erythema and edema
Graefe et al, 2001(11)	case report	1	Red-brown colored plaque on forehead	Surgical excision, topical corticosteroid	none	UVA1	340-440	n.d.	-	Initial 20 J/cm ² for 2 sessions; 50 J/cm ² for 3 sessions; 90 J/cm ² for 5 sessions and 130 J/cm ² for 15 sessions	25; 4 times weekly	Lesion improved, leaving only a few markedly flattened papules; treatment with topical corticosteroid after UVA1 therapy; no relapse after 2 months	n.d.

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Emer et al, 2014(12)	case report	1	Indurated red-to-violaceous nodules on the nose (Lupus pernio)	Topical, oral, and intralesional corticosteroids; oral hydroxychloroquine, and allopurinol	NAFR (1550 nm, 70mJ); Prophylactic hydroquinone	PDL	595	0.45	n.d.	8	3; 30 days	Reduction in lesions size; improvement maintained for 6 months of follow-up	n.d.
Roos et al, 2009(13)	case report	1	Grossly defined nodules on back	Topical corticosteroid	After 4 weeks of PDL beginning; systemic	PDL	585	0.5	n.d.	6	n.d.	Complete improvement after a follow-up of 28 months	n.d.

					corticosteroid by iritidocyclitis and necrobiosis lipoidica								
Holzmann et al, 2008(14)	case report	1	Isolated inflammatory, erythematous, ulcerated plaque on the left buccal cheek	Surgical excision, amoxicillin, topical and, intralesional corticosteroid, tacrolimus 0.1%	none	PDL	595	0.5	n.d.	7.6-7.8	3 (2 to 4 pulses per session); 6 weeks	Clinical remission; no recurrence after 12-month follow-up	none
O'Donoghue and Barlow, 2005(15)	case series	3	case 1: lupus pernio; case 2: violaceous nodule on the nasal bridge and diffuse nasal tip swelling and erythema; case 3: lupus pernio	case 1: hydroxychloroquine, oral, and intralesional corticosteroid, cyclosporine, MTX; case 2: n.d.; case 3: hydroxychloroquine, oral, and intralesional corticosteroid, MTX, cryotherapy.	Case 3: prednisolone 5mg (systemic sarcoidosis) Cases 1 and 3: intralesional triamcinolone acetone	CO2 Laser (paint mode)	n.d.	n.d.	n.d.	n.d.	n.d.	Residual lesional tissue and wound base was present in cases 1 and 3 (treated with intralesional triamcinolone); cases 1 and 2: well controlled; case 3: partial recurrence after 2 years by declined systemic treatment	cases 1: subtle hypopigmentation
Ekback and Molin, 2004(16)	case report	1	Bluish-red slightly infiltrated plaques on left cheek	Topical and intralesional corticosteroid, hydroxychloroquine	none	PDL	585	0.45	n.d.	6.75-7	10; n.d. (10 sessions in 3 years)	Lesions were less reddish and thinner; limited effect	n.d.
				PDL	none	YAG Laser	532	50	n.d.	12-16	2; 7 months	Complete improvement; no recurrence after 3 years	Slight erythema and swelling of treated skin
Grema et al, 2002(17)	case report	1	Scarred tissue and reddish-brown livid nodal lesions with irregular margins on elbow and knees	n.d.	none	PDL	585	0.5	n.d.	5.5-5.6	3; 4-6 weeks	No response after 7 months; pruritus remained unaffected	n.d.

				PDL	none	Q-switched ruby laser	694	25 nanosec	n.d.	10	4; 4-6 weeks	Complete improvement; no recurrence	none
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Cliff et al, 1999(18)	case report	1	Violaceous eruption over the nose (lupus pernio)	Topical corticosteroid; cryotherapy	none	PDL	585	n.d. (60-125 shots pro session)	n.d.	5.6-7.3	6; 6 weeks	Considerable cosmetic improvement	
Stack et al, 1996(19)	case report	1	Nodular skin lesions on trunk, extremities, and nasal alar rims, columella, philtrum and upper lip (lupus pernio)	Intralesional corticosteroid, hydroxychloroquine	Intralesional corticosteroid	CO2-Laser	n.d.	n.d.	n.d.	n.d.	1	Complete improvement, no recurrence after 24 months	n.d.
Goodman and Alpern, 1992(20)	case report	1	Stable, diffuse, violaceous erythema with multiple granulomatous papules on the nose	Intralesional corticosteroids	none	PDL	585	0.46	n.d.	7-8	3; 6-7 months	75% improvement 6 months after second session; return of majority of erythema and papules after 15 months (before the third session)	n.d.

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