

Table S1. Summary of included studies

Study (ref), year	Study period	Study design	Sample size and classification	Rituximab treatment	Concomitant therapy	Author's conclusion
Arin et al. (4), 2005	N/A	Case series	4 PF, 1 PV	375 mg/m <sup>2</sup> qw × 4	CS+ISA (5)	Effective
Goh et al. (7), 2007	N/A	Prospective case series	5 PV	375 mg/m <sup>2</sup> qw × 4	CS only (1), CS+ISA (4)	Effective; caution with multiple concomitant ISA
Marzano et al. (8), 2007	2004–07	Case series	2 PV, 3 PF	375 mg/m <sup>2</sup> qw × 4	CS+ISA (5)	Effective
Antonucci et al. (5), 2007	N/A	Case series	5 PV	375 mg/m <sup>2</sup> qw × 4	CS (5), ISA (N/A)	Effective
Cianchini et al. (6), 2007	N/A	Case series	10 PV, 2 PF	375 mg/m <sup>2</sup> qw × 4	CS only (1), CS+ISA (11)	Effective
Shimanovich, et al. (25), 2008	2005–07	Case series	5 PV, 2 PF	375 mg/m <sup>2</sup> qw × 4+ PAIA	CS only (1), CS+ISA (11)	Effective with rapid remission
Schmidt et al. (9), 2009	N/A	Case series	8 PV, 3 PF	375 mg/m <sup>2</sup> qw × 4 (n=3)	CS+ISA (11)	Effective
Kim et al. (11), 2011	1993–08	Case series/cohort study	15 PV, 1 PF	375 mg/m <sup>2</sup> qw × 4+ IA (n=8) 375 mg/m <sup>2</sup> q2–3 wk × 4	CS+ISA (16)	Effective with earlier remission than those with conventional therapy (CR 3.8 vs. 72 months; p=0.001)
Kasperkiewicz et al. (10), 2011	N/A	Case series	8 PV, 2 PF	375 mg/m <sup>2</sup> qw × 4 (n=4; 2 with concomitant IA) 1,000 mg q2wk × 2 (n=5; 1 with concomitant IA)	CS+ISA (9) ISA only (1)	Effective
Kim et al. (22), 2011	2006–10	Comparative study	25 PV, 2 PF	500 mg q2wk × 2 (n=1) 375 mg/m <sup>2</sup> qw × 2 (n=12) 375 mg/m <sup>2</sup> qw × 3 (n=12) 375 mg/m <sup>2</sup> qw × 4 (n=1) 375 mg/m <sup>2</sup> qw × 5 (n=2) 1,000 mg q3wk × 2+ PAIA	CS (3) CS+ISA (24)	Effective at different doses but ≥ 3 infusions with shorter time to CR and lower relapse rate
Kasperkiewicz et al. (28), 2012	N/A	Case series	17 PV, 6 PF	500 mg q2wk × 2	Pulsed dexamethasone plus AZA or MMF	Effective with fast and long-term remission
Horváth et al. (23), 2012	2008–11	Case series	12 PV, 3 PF	IA+1,000 mg q2wk × 2 (n=8) IA+375 mg/m <sup>2</sup> qw × 4 (n=2) 375 mg/m <sup>2</sup> qw × 4 (n=13)	CS+ISA (7), ISA only (4), CS only (2), Nil (2)	Effective
Behzad et al. (26), 2012	N/A	Case series	10 PV	IA+1,000 mg q2wk × 2 (n=8) IA+375 mg/m <sup>2</sup> qw × 4 (n=2)	CS+ISA (6)	Effective
Reguiat et al. (13), 2012	1997–10	Comparative study	9 PV, 4 PF (RTX); 7 PV, 4 PF (control)	Control subjects (n=11; with CS±ISA)	ISA only (2), CS only (2) CS+ISA (6)	Effective; long-term CR without maintenance therapy did not differ significantly from that of control subjects
Kasperkiewicz et al. (27), 2012	~2008	Case series	33 PV, 3 PF	375 mg/m <sup>2</sup> qw × 4 (n=10) 1,000 mg q2–3wk × 2 (n=25) 375 mg/m <sup>2</sup> × 7 with irregular intervals (n=1) Concomitant IA (n=14)	N/A	Effective
Cianchini et al. (18), 2012	N/A	Case series	37 PV, 5 PF	1,000 mg q15d × 2	Low-dose CS only (42)	Effective
Lunardon et al. (12), 2012	2005–12	Case series	24 PV, 7 PF	375 mg/m <sup>2</sup> qw × 4 (n=15) 1,000 mg q2wk × 2 (n=16) 375 mg/m <sup>2</sup> qw × 4	CS+ISA (20) ISA only (3), CS only (8) CS only (16), Nil (5)	Effective (median disease-free remission of 19 months); better outcomes with early RTX use
Colliou et al. (35), 2013 <sup>a</sup>	2003–04; 2003–10	Prospective multicenter series	14 PV, 7 PF	375 mg/m <sup>2</sup> qw × 4	CS only (16), Nil (5)	Effective
Leshem et al. (19), 2013	2007–11	Case series	42 PV, 3 PF	1,000 mg q2wk × 2 (n=45)	N/A	Effective
Baum et al. (15), 2013	2009–12	Case series	18 PV	375 mg/m <sup>2</sup> qw × 4 (n=18)	CS+ISA (10), CS only (8)	Effective
Kanwar et al. (24), 2013	N/A	Case series	8 PV, 1 PF	1,000 mg q2wk × 2 (n=9)	CS+ISA (1), CS only (8)	Effective
Kolesnik et al. (29), 2014	2007–12	Case series	6 PV, 2 PF	PAIA+375 mg/m <sup>2</sup> qw × 3 (n=1); × 4 (n=6); × 5 (n=1)	CS+ISA (6), CS only (2)	Effective
Balighi et al. (14), 2013	2007–11	Case series	40 PV	375 mg/m <sup>2</sup> qw × 4 (n=40)	CS only (40)	Effective as adjuvant therapy; safety concern

Table SI. *Contd.*

Cho et al. (31), 2013	2009–11	Case series	6 PV, 3 PF	500 mg qwk ×4 (n=9)	CS only (9)	Effective
Heelan et al. (20), 2014	2006–13	Case series	84 PV; 8 PF	1,000 mg q2wk ×2 (n=92)	CS+ISA (15), CS or ISA only (76), Nil (1)	Effective; further cycles of RTX after relapses were still efficacious.
Cho et al. (16), 2013	2006–11	Comparative study	17 PV, 6PF	375 mg/m <sup>2</sup> qwk ×4 (n=8) 375 mg/m <sup>2</sup> qwk ×3 (n=2)	CS+ISA (16) CS only (7)	Effective
Kanwar et al. (21), 2014	2011–12	Randomized comparative study	15 PV, 7 PF	375 mg/m <sup>2</sup> qwk ×2 (n=13) 1,000 mg q2wk ×2 (n=11)	CS only (21)	Effective; higher dose group showed lower relapse rate and lesser amount of adjuvant drug
Gregoriou et al. (17), 2014	2008–12	Case series	17 PV, 1 PF	500 mg q2wk ×2 (n=11) 375 mg/m <sup>2</sup> qwk ×4 (n=18)	CS+ISA (4), CS only (8), ISA only (6)	Effective
Leshem et al. (36), 2014 <sup>b</sup>	2010–13	Case series	10 PV	1,000 mg q2wk ×2 (n=10)	CS+ISA (1), CS only (9)	Effective

<sup>a</sup>The study included is the long-term follow-up study from Joly et al. (41), 2007. <sup>b</sup>All cases in this series were from the published data in Leshem et al. (19), 2013. This 9-case series was excluded in overall analysis, but included in multivariate analysis due to availability of raw data.

PAIA: protein A immunoadsorption; AZA: azathioprine; MMF: mycophenolate mofetil; RTX: rituximab; PV: pemphigus vulgaris; PF: pemphigus foliaceus; CS: corticosteroid; ISA: immunosuppressive agent; IA: immunoadsorption; CR: complete remission; N/A: no data available; Nil: no concomitant drug; qwk: every week; q2w: in 2-week intervals.