

Table 1 Baselines characteristics of included studies

Reference	Country	Type	Age mean (SD)		Female/Male		Patients (n)		Left/Right		Stone size (mm)		SFR definition	Follow-up time
			Group D	Group F	Group D	Group F	Group	Group	Group D	Group F	Group D	Group F		
Chen 2022	China	cohort study	53.23 (12.68)	53.95 (13.57)	101/49	100/50	150	150	81/69	84/66	51.33 (58.69)	48.9 (59.24) ^a	≤ 3 mm	1 month
El-Nahas 2019	Kuwait	cohort study	49.2 (13.2)	50.5 (13.4)	23/28	25/31	51	56	34/17	30/26	14.5 (5.5)	14.4 (6.9)	NOR	2 month
Golomb 2022	Israel	cohort study	53.5 (14.8)	54 (13.3)	16/34	21/29	50	50	30/17	26/24	17.0 (8.8)	12.7 (5.4)	≤ 3 mm	Long term
Humphreys 2018	America	cohort study	54.7 (13.0)	53.9 (16.8)	27/41	43/39	68	82	39/29	37/39	11.3 (4.3)	8.8 (3.5)	NOR	6 week
Lee 2016	China	cohort study	58.6(11.0)	56.1(12.3)	30/46	57/115	76	172	NA	NA	11.1 (5.2)	11.1 (4.8)	< 3 mm	1 month
Liao 2023	China	RCT	46.6 (12.7)	47.2 (13.2)	39/67	57/65	106	112	66/40	62/50	13.5 ± 3.8	14.3 ± 3.7	≤ 2 mm	3 month
Mulăescu 2014	Romania	cohort study	NA	NA	NA	NA	40	40	NA	NA	NA	NA	≤ 1 mm	24 hours
Schatloff 2010	Israel	RCT	53.88 (15.43)	46.41 (12.499)	5/25	7/23	30	30	NA	NA	11.43 (5.39)	10.90 (6.37)	< 2 mm	2 month
Yildirim 2022	Turkey	cohort study	50.29 (15.98)	44.59 (12.28)	8/23	11/21	31	32	12/19	15/17	11.03 (3.82)	12.03 (4.69)	< 3 mm	3 month

a:a is defined as the surface area of the stone and other values are defined as the maximum diameter or length of the stone; NOR:no residual fragments; Mean (SD)