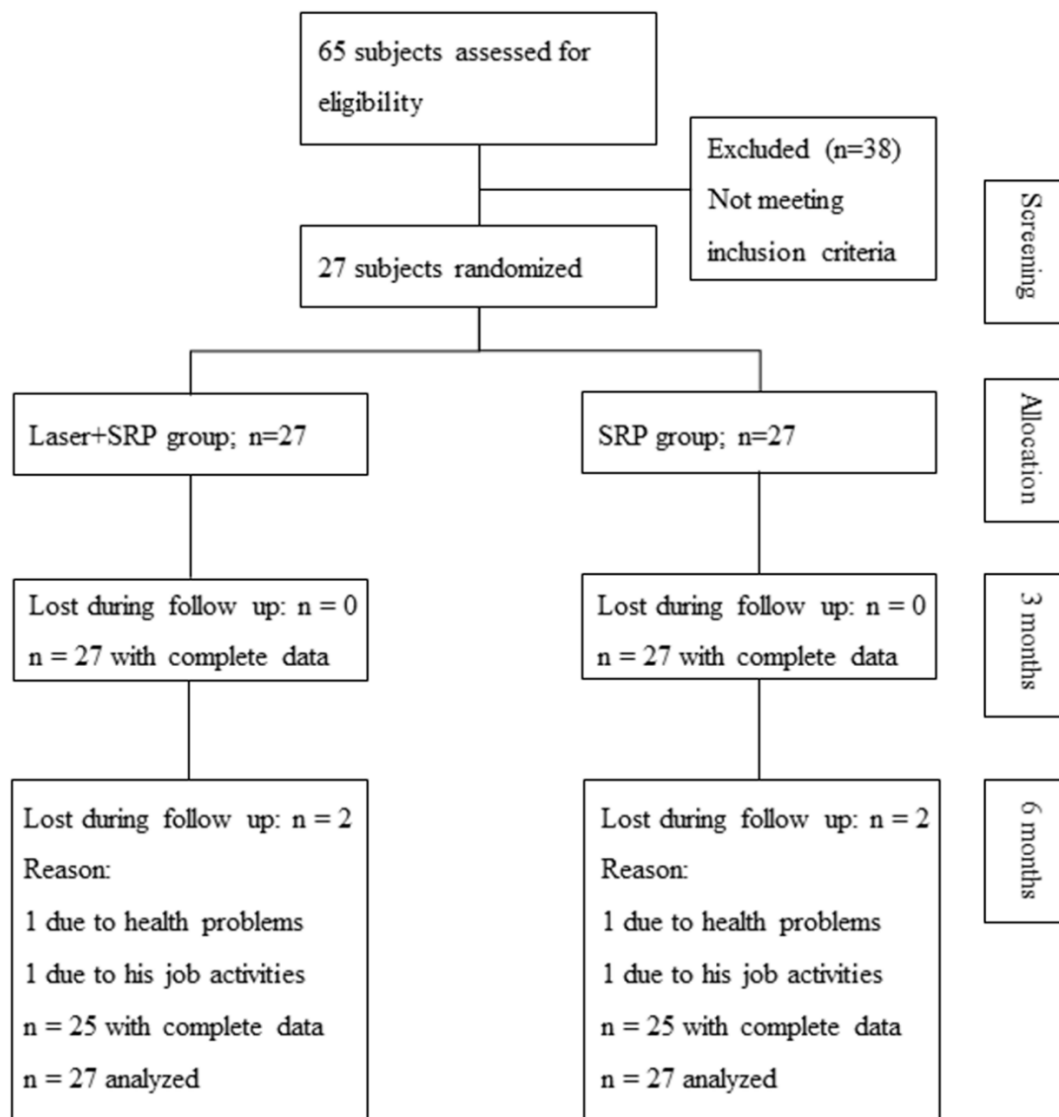**Participant Flow**

Figure 1. Flow chart of the study design and conduct. SRP: scaling and root planning

Baseline Characteristics

Table 1. Baseline characteristics of the study population

Characteristic	n=27
Age (years) (mean ±SD)	49.0±9.6
Gender [n (%)]	
Male	11(40.7)
Female	16(59.3)
BMI (kg/m^2) (mean ± SD)	24.9±3.3
Smoking status	
Non-smoker	27(100%)
Marriage status	
Single	2(7.4%)
Married	25(92.6%)
Living status	
Living alone	1(3.7%)
Living with family	26(96.3%)
Periodontitis stage [n (%)]	
Stage Ⅱ	8(29.6)
Stage Ⅲ	19(70.4)

BMI: body mass index

Table 2. Means (± SD) of the periodontal indexes at baseline among all 27 patients participating in the trial

Periodontal index	ERL+SRP group (Test quadrants) n=27	SRP group (Control quadrants) n=27	p value
Probing depth (PD)	3.60±0.41	3.58±0.42	0.52
Clinical attachment level (CAL)	5.38±0.71	5.30±0.77	0.13
Bleeding index (BI)	2.68±0.58	2.67±0.54	0.84
Plaque index (PLI)	1.92±0.43	1.94±0.42	0.23

The significance of differences between groups was assessed using analyses of Paired-Sample t test (*: p<0.05).

ERL: Er:YAG laser; SRP: scaling and root planing

Outcome Measures

Table 3. Means (± SD) of the periodontal indexes by treatment groups at both baseline and follow-up periods at 3 months and 6 months among 27 patients

Periodontal index	ERL+SRP group (Test quadrants) n=27	SRP group (Control quadrants) n=27	p value
PD			0.03*
Baseline	3.60±0.41	3.58±0.42	
3 months	2.98±0.38 [a]	3.09±0.35 [a]	
6 months	2.91±0.31 [b]	3.02±0.30 [b]	
CAL			0.03*
Baseline	5.38±0.71	5.30±0.77	
3 months	4.51±0.69 [a]	4.72±0.67 [a]	
6 months	4.52±0.65 [b]	4.72±0.66 [b]	
BI			0.18
Baseline	2.68±0.58	2.67±0.54	
3 months	2.19±0.32 [a]	2.24±0.40 [a]	
6 months	2.13±0.30 [b]	2.22±0.36 [b]	
PLI			0.34
Baseline	1.92±0.43	1.94±0.42	
3 months	1.43±0.26 [a]	1.46±0.26 [a]	
6 months	1.42±0.21 [b]	1.48±0.20 [b]	

The significance of differences between groups was assessed using analyses of the linear mixed model (*: p<0.05).

The pair-wise comparisons within groups were performed by the least-significant-difference (LSD) method (a: indicate significant differences between baseline & 3 months follow-up; b: indicate significant differences between baseline & 6 months follow-up).

ERL: Er:YAG laser; SRP: scaling and root planing; PD: probing depth; CAL: clinical attachment level; BI: bleeding index; PLI: plaque index.

Adverse Events

There were no adverse events in the study.