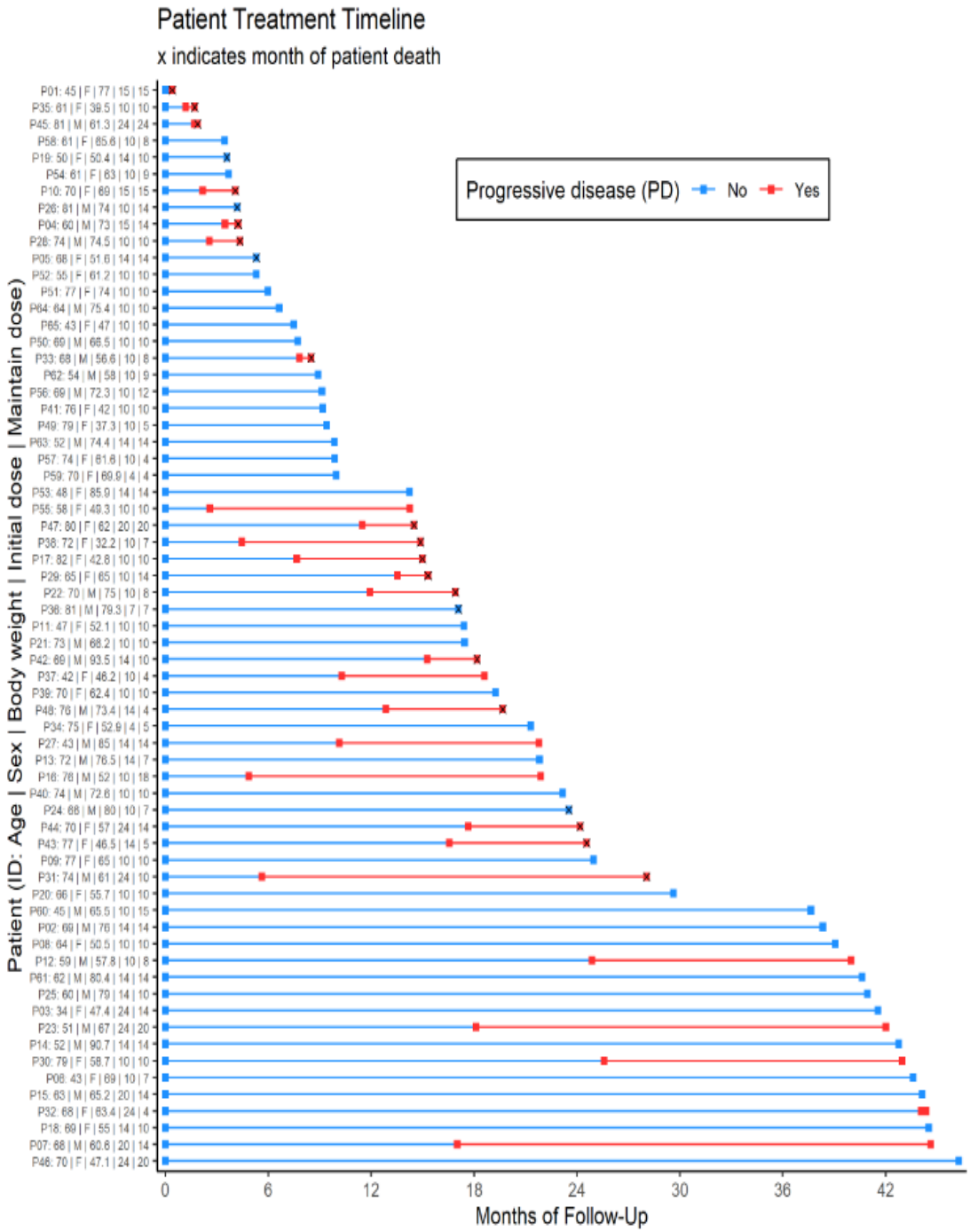

Supplementary Figure 1. The treatment timeline of all recruited patients of radioiodine-refractory differentiated thyroid carcinoma included patient's ID, age, sex, body weight, initial dose and maintenance dose of lenvatinib treatment.

Supplementary Table S1: Adverse events of low maintenance dose of lenvatinib

Adverse effect	**Any grade**	**Grade 1**	**Grade 2**	**Grade 3**	**Grade 4**
Hypertension	42 (64.6%)	31 (47.7%)	9 (13.8%)	2 (3.1%)	-
Proteinuria	32 (49.2%)	17 (26.2%)	11 (16.9%)	4 (6.2%)	-
Diarrhea	13 (20.0%)	9 (13.8%)	4 (6.2%)	-	-
Asthenia	36 (55.4%)	30 (46.2%)	5 (7.7%)	1 (1.5%)	-
Weight loss	19 (29.2%)	15 (23.1%)	4 (6.2%)	-	-
Hand-foot syndrome	25 (38.5%)	16 (24.6%)	7 (10.8%)	2 (3.1%)	-
Anorexia	24 (36.9%)	20 (30.8%)	3 (4.6%)	1 (1.5%)	-

The adverse effect was evaluated by the National Cancer Institute Common Terminology Criteria for Adverse Events (CTCAE) version 5.0.

Supplementary Table S2. ECOG details.

Characteristics	PD Group		Non-PD patients	*P*
	PFS≤10.5 m	PFS>10.5 m		
ECOG before lenvatinib				0.363
0	2 (15.4%)	2 (14.3%)	13 (33.3%)	
1	8 (69.2%)	9 (69.2%)	23 (59.0%)	
2	1 (7.7%)-	2 (15.4%)	2 (5.1%)	
3	1 (7.7%)	-	1 (2.6%)	
4	1 (7.7%)	-	-	
ECOG after lenvatinib				0.452
0	1 (7.7%)	1 (7.1%)	8 (20.5%)	
1	9 (69.2%)	11 (84.6%)	28 (71.8%)	
2	2 (15.4%)	1 (7.7%)	3 (7.7%)	
3	1 (7.7%)	-	-	
4	-	-	-	