



Real-world efficacy data of lenvatinib therapy based on patient tolerability in unresectable differentiated thyroid cancer

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Introduction

◆ Lenvatinib ◆

First-line therapy to treat unresectable differentiated thyroid cancer (DTC) that improved the prognosis compared with placebo in the phase 3 SELECT trial

However..

The incidence of adverse events with lenvatinib treatment is high.

✓ Hypertension ✓ Proteinuria ✓ Asthenia ✓ Hand-foot syndrome ... and more

→ Long-term full dose therapy is rarely achieved.

► We evaluated the effect of dose adjustment according to patients' tolerability and the effect on clinical outcomes.

Materials and Methods

✓ We retrospectively analyzed clinical outcomes in patients with unresectable DTC who were treated with lenvatinib at our institution between 2015 and 2023.

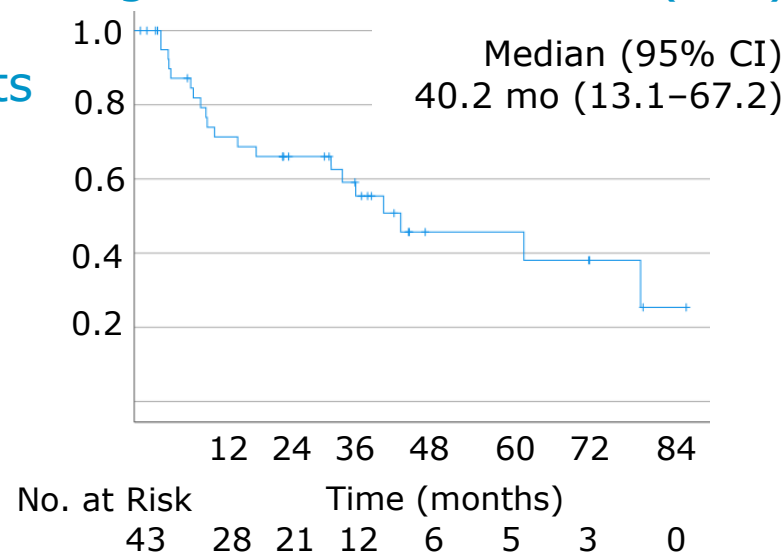
✓ Patients had lesions that were refractory to radioactive iodine¹³¹ therapy or unresectable, and these lesions had progressed within 13 months.

Results

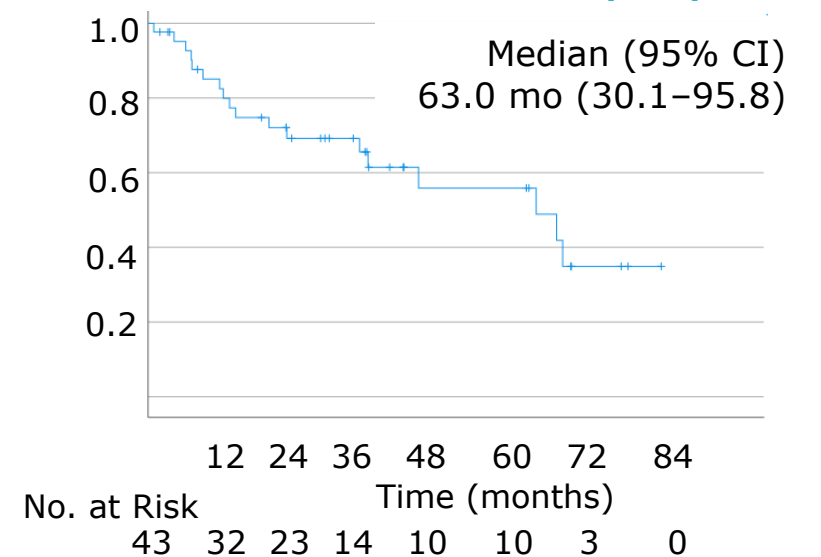
Clinical characteristics of the 43 patients

Total population (n=43)	
Median age, years (range)	70 (25-92)
Male, n (%)	17 (39.5)
ECOG performance status 0 or 1, n (%)	38 (88.4)
Histology, n (%)	
Papillary thyroid cancer	36 (83.7)
Follicular thyroid cancer	7 (16.3)
Metastasis sites, n (%)	
Lymph nodes	35 (81.3)
Lung	28 (65.1)
Bone	7 (16.2)
Liver	2 (4.6)
Previous therapy, n (%)	
Surgery	40 (93)
Radioactive iodine ¹³¹ therapy	7 (16.3)
Multi kinase inhibitor	5 (11.6)

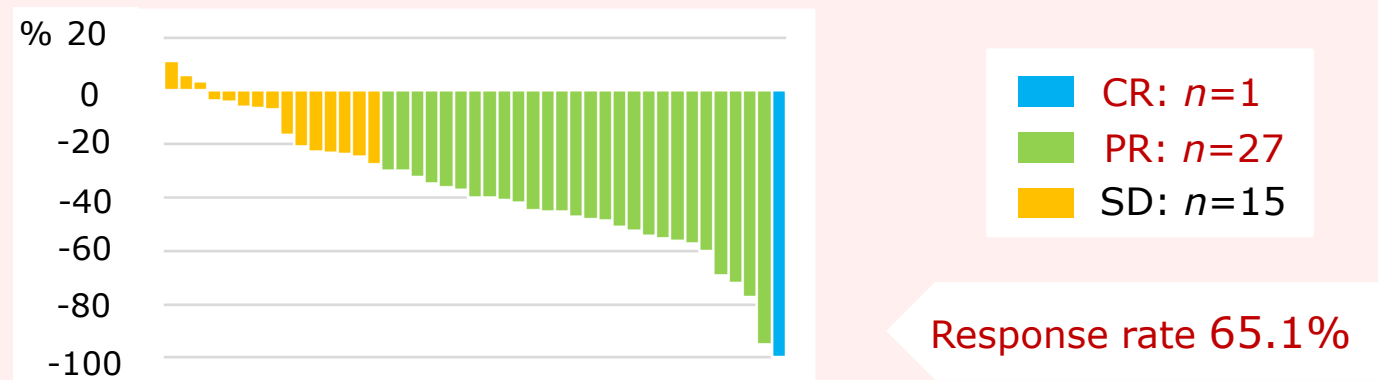
Progression-free survival (PFS)



Overall survival (OS)



Maximum percentage change of target lesions from baseline



Major adverse events (AE)

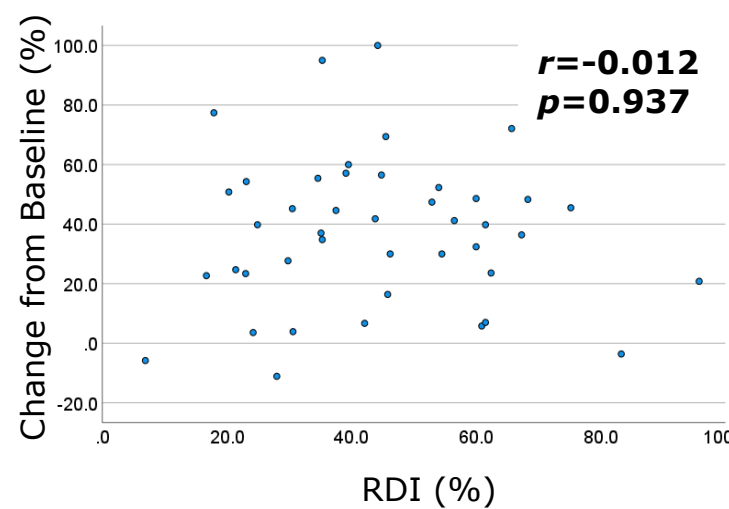
	All grades	Grade ≥3
Hypertension	100%	30.2%
Proteinuria	83.7%	11.6%
Hand-foot syndrome	72.0%	9.3%
Asthenia	48.8%	0%

AE required dose reduction...

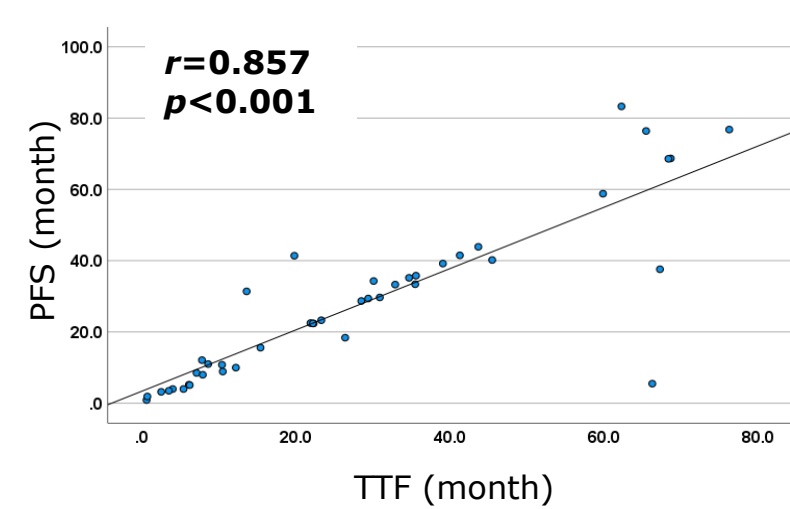
The mean of relative dose intensity (RDI) to best overall response:

44.3 % (10.6 mg/day)

Correlation between tumor response and RDI



Correlation between PFS and time to treatment failure (TTF)



Summary

- The median PFS was 40.2 months, and the median OS was 63.3 months.
- Although it was difficult to maintain high RDI to control AE, the response rate was high, at 65.1%.
- There was no correlation between tumor response and RDI, while there was a strong correlation between PFS and TTF. The finding indicated that long TTF duration contributes to prolonged PFS.

Conclusion

It is important to adjust the appropriate RDI for patient tolerability and to maintain a long TTF duration to improve prognosis.

COI Disclosure
All authors have no financial conflicts of interest to disclose concerning the presentation.