Pattern of care and outcome of non-small cell lung cancer patients receiving gefitinib beyond radiologic progression.

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Conflict of Interest disclosure slide for representative speakers or investigators

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JSMO Japanese Society of Medical Oncology

Background

- We previously showed (Yamane et al, ESMO 2014) that 1/3 of non-small cell lung cancer patients (NSCLC pts) with activating epidermal growth factor receptor mutation (EGFRm+) continued to receive an EGFR-tyrosine kinase inhibitor after radiological “progressive disease” (R-PD) was seen, if they remained clinically stable, until clinical deterioration (C-PD).

Objectives

- To explore for patients subgroups who would be likely to receive benefit from “continuation of TKI beyond PD” strategy, in gefitinib-receiving cohort.
- Focusing on elderly (≥70 y.o.) and female patients, as compared to non-elderly and male patients, respectively.

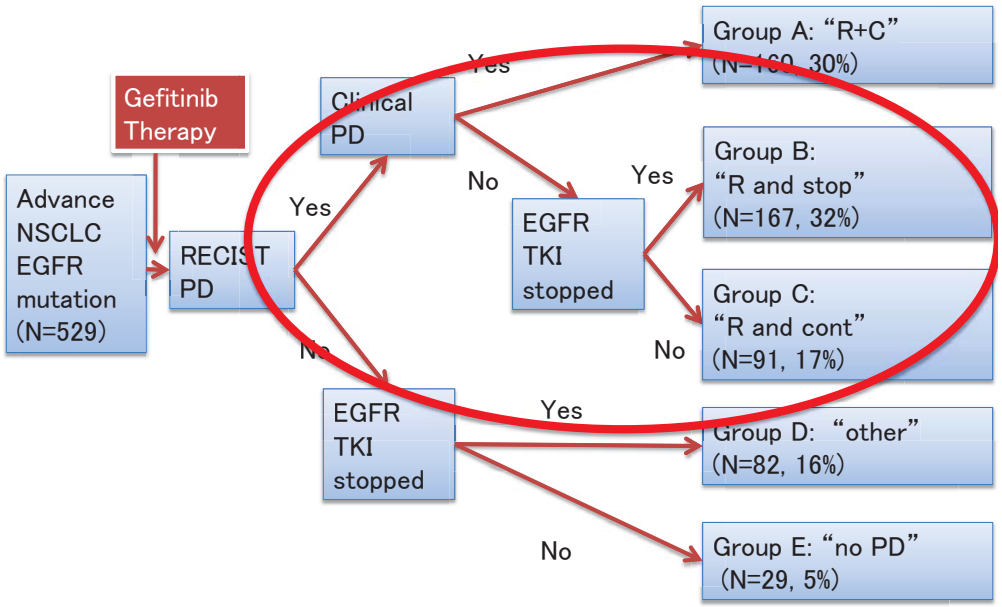
Study subjects (Patients)

- Inclusion criteria
  - Advanced or post-operational recurrent non-small-cell lung cancer
  - Diagnosed as having tumor harboring EGFR mutation
    - Definition of EGFR gene mutation positive (mutation of sensitive gene)
      - (A) Deletion of Exon19 (irrespective of the subtype)
      - (B) Exon 21 L858R
      - (C) Other rare mutations (Exon 18 G791X, etc.)
    - EGFR gene mutation excluded from this study:
      - (A) Exon 20 insertion mutation
      - (B) T790M
  - Treatment with Gefitinib or was started from January 1, 2009 until December 31, 2011 as the initial anti-cancer therapy
- Exclusion criteria
  - Prior treatment with cytotoxic chemotherapy
  - Concomitant malignancy

Definition of "Clinical PD (disease progression)"

- Symptomatic progression
- Declining of PS due to progression
- Threat to major organ(s)
- Unequivocal multi-organ progression

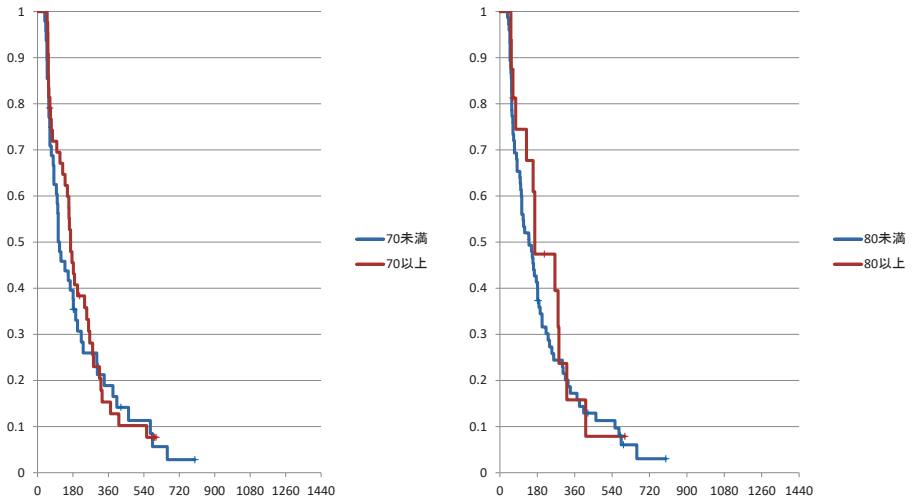
Patients cohort



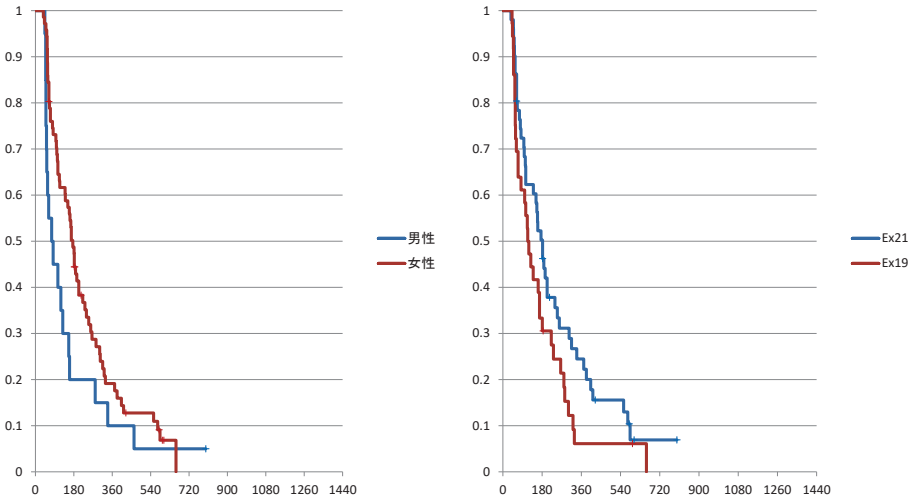
Patient characteristics of those who remained clinically stable on radiological PD (groups B and C)

Group	B (N=167)	C (N=91)	P value
Gender M Gender F	58 (35%) 109 (65%)	20 (22%) 71 (78%)	0.03
Age median (Range)	69 (31~88)	69 (27~93)	>0.2
< 70 y.o. > 70 y.o.	95 (61%) 72 (39%)	48 (53%) 43 (47%)	>0.2
< 80 y.o. > 80 y.o.	147 (88%) 20 (12%)	75 (82%) 16 (18%)	>0.2
PS 0-1 PS 2-4	131 (78%) 36 (22%)	69 (76%) 22 (24%)	>0.2
Never smoker Ever smoker	106 (63%) 61 (37%)	71 (78%) 20 (22%)	0.05
No prior Tx Prior Tx	123 (74%) 44 (26%)	59 (65%) 32 (35%)	0.15
Mutation ex19 Mutation ex21 Mutation others	81 (49%) 77 (46%) 9 (5%)	36 (40%) 51 (56%) 4 (4%)	>0.2
CR/PR NC/PD/NE	123 (74%) 44 (26%)	72 (79%) 19 (21%)	>0.2

Group C: R-PD to C-PD



Group C: R-PD to C-PD

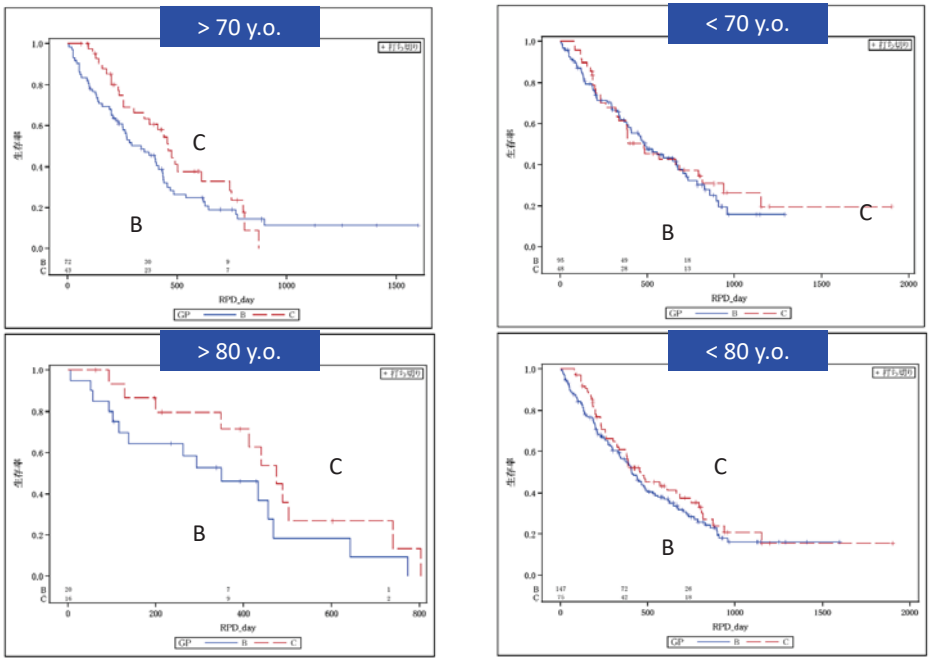


Reason of C-PD in Group C

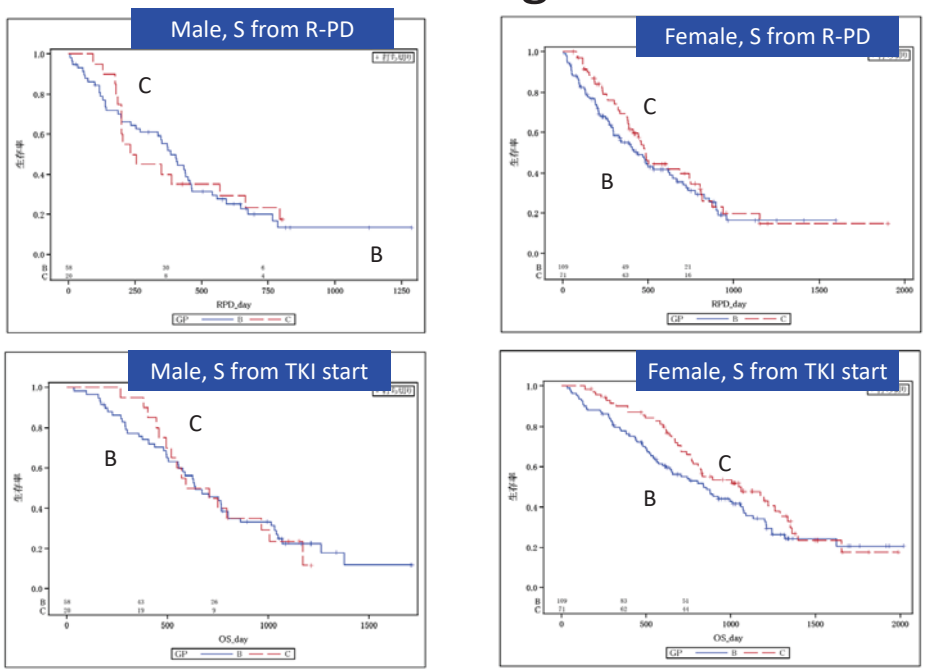
	All	<70	>70	<80	>80	Male	Female
Reason	N=91	N=48	N=43	N=85	N=16	N=20	N=71
1	36 (40%)	18 (38%)	18 (42%)	31 (36%)	5 (31%)	8 (40%)	28 (39%)
2	26 (29%)	12 (25%)	14 (33%)	20 (24%)	6 (38%)	6 (30%)	20 (28%)
3	11 (12%)	6 (13%)	5 (12%)	10 (12%)	1 (6%)	4 (20%)	7 (10%)
4	41 (45%)	27 (56%)	14 (33%)	37 (44%)	4 (25%)	7 (35%)	34 (48%)

1. Symptomatic progression
2. Declining of PS due to progression
3. Threat to major organ(s)
4. Unequivocal multi-organ progression

Survival from R-PD and Age



Survival and gender



Summary

- Female patients were more likely to receive gefitinib continuation on clinically stable, radiological PD (R-PD).
- Age was not significantly associated with gefitinib continuation on R-PD.

Summary (cont'd)

- Period from R-PD to clinical PD tended to be longer in female patients who received gefitinib "beyond PD".
- Survival after R-PD tended to be longer in elderly (but not non-elderly) patients who received gefitinib "beyond PD" than who did not.

Conclusions and Acknowledgement

- Female and elderly patients could be candidates for the subpopulations who are likely to receive benefit from the strategy of gefitinib "beyond PD" continuation.
- More research should be warranted.
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