487P Afatinib versus gefitinib or erlotinib in first-line setting for Malaysia patients with EGFR mutant advanced lung adenocarcinoma

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Background: Afatinib is an irreversible second-generation epidermal growth factor receptor (EGFR)-tyrosine kinase inhibitor (TKI) while gefitinib or erlotinib are reversible first-generation EGFR-TKIs.

Methods: A retrospective analysis of patients with EGFR mutant advanced lung adenocarcinoma receiving first-line afatinib versus gefitinib or erlotinib at University Malaya Medical Centre from 1st January 2015 to 31th December 2018.

Results: Of 113 patients, 24 (21.2%) received afatinib, 63 (55.8%) received gefitinib and 26 (23.0%) received erlotinib in first-line setting. Their demographic and clinical characteristics are shown in the table. Afatinib was used significantly more frequently in patients with rare or complex EGFR mutations ($p = 0.005$), and more often in patients with symptomatic brain metastases. The median progression-free survival (mPFS) of patients treated with afatinib (13.1 months) was longer than that of patients treated with gefitinib (10.9 months) or erlotinib (7.8 months) ($p = 0.479$). Patients receiving afatinib had consistently longer PFS than patients receiving gefitinib for the first 17 months and erlotinib for the first 20 months. The overall response rate was higher in patients on afatinib (75.0%) than those on gefitinib (63.5%) or erlotinib (53.8%). There was no difference in the disease control rate. Three patients (2.7%) had severe side-effects while on EGFR-TKI. Of two patients on afatinib, one had grade-3 diarrhea while another had grade 3 stomatitis, rash and paronychia. One patient had grade 3 rash on gefitinib.

Conclusions: Patients receiving first-line afatinib demonstrated longer mPFS than those on first-line gefitinib or erlotinib. The lack of statistical significance in this study is because of the small number of patients treated with afatinib, more frequent rare or complex EGFR mutations and more symptomatic brain metastases among afatinib treated patients.

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Table: 487P Clinical characteristic of 113 patients on first-line EGFR-TKI

Characteristics, No (%)		Afatinib (24)	Gefitinib (63)	Erlotinib (26)	p-value
Symp brain mets	No Yes	17 (70.8) 7 (29.2)	53 (84.1) 10 (15.9)	22 (84.6) 4 (15.4)	0.181
EGFR subtype	19 del 21 L858R Rare/complex	16 (66.7) 2 (8.3) 6 (25.0)	39 (61.9) 20 (31.7) 4 (6.3)	22 (84.6) 3 (11.5) 1 (3.8)	0.005
Side-effect	grade 1-2 grade 3	22 (91.7) 2 (8.3)	62 (98.4) 1 (1.6)	26 (100) 0	0.007
Objective response	Yes No	18 (75.0) 6 (25.0)	40 (63.5) 23 (36.5)	14 (53.8) 12 (46.2)	0.298
Disease control	Yes No	23 (95.8) 1 (4.2)	59 (93.7) 4 (6.3)	24 (92.3) 2 (7.7)	0.872
Median PFS	Months Event, No. (%)	13.1 19 (79.2)	10.9 49 (77.8)	7.8 19 (73.1)	0.479