

**Supplemental table 1A. Univariate analysis of patient cohort**

<b>PFS</b>	<b>EGFR/ALK+ NSCLC HR (95%CI)</b>	<b>P</b>	<b>Wild type HR (95%CI)</b>	<b>P</b>
<b>Age ( &lt; 50 vs. 50-60 vs. &gt; 60)</b>	0.86 ( 0.64 , 1.15 )	0.30	0.97 ( 0.80 , 1.19 )	0.78
<b>KPS (&lt; 70 vs. 70-80 vs. &gt; 80)</b>	0.62 ( 0.42 , 0.93 )	0.02	0.72 ( 0.58, 0.90 )	0.003
<b>Brain Mets. (1 vs. 2-3 vs. &gt; 3)</b>	0.96 ( 0.74 , 1.26 )	0.78	1.23 ( 1.04 , 1.45 )	0.014
<b>Symptomatic</b>	1.32 ( 0.81 , 2.16 )	0.26	1.12 ( 0.82,1.54 )	0.47
<b>Synchronous</b>	0.78 ( 0.49 , 1.25 )	0.31	0.80 ( 0.61, 1.07 )	0.13
<b>ECM (No/yes)</b>	0.59 ( 0.36, 0.99 )	0.046	1.38 ( 1.04, 1.84 )	0.026
<b>OS</b>				
<b>Age ( &lt; 50 vs. 50-60 vs. &gt; 60)</b>	1.29 ( 0.91 , 1.81 )	0.15	1.10 ( 0.89 , 1.36 )	0.36
<b>KPS (&lt; 70 vs. 70-80 vs. &gt; 80)</b>	0.38 ( 0.25 , 0.59 )	<0.001	0.69 ( 0.55 , 0.87 )	0.001
<b>Brain Mets. (1 vs. 2-3 vs. &gt; 3)</b>	0.91 ( 0.68 , 1.21 )	0.51	1.32 ( 1.10 , 1.57 )	0.003
<b>Symptomatic</b>	1.23 ( 0.73 , 2.08 )	0.43	0.99 ( 0.71 , 1.39 )	0.97
<b>Synchronous</b>	0.77 ( 0.47 , 1.27 )	0.31	0.85 ( 0.63 , 1.15 )	0.29
<b>ECM (No/Yes)</b>	1.30 ( 0.75, 2.26 )	0.35	1.87 ( 1.37, 2.56 )	<0.001

Abbreviations: ECM, extracranial metastases; KPS, Karnofsky performance status; NSCLC, non-small cell lung cancer; OS, overall survival; PFS, progression free survival.

**Supplementary table 1B: Association between brain metastases and extracranial metastases**

	<b>Mutation positive cohort</b>	<b>Wild type cohort</b>
<b>P value of associations*</b>	<b>0.64</b>	<b>0.027</b>

\* Cochran-Armitage Trend test

**Supplemental Table 2. Multivariable analysis on PFS/OS excluding ECM for independent level of number of BM**

<b>A. PFS</b>				
	<b><i>EGFR/ALK+</i> NSCLC</b>	<b><i>P</i></b>	<b>Wild type</b>	<b><i>P</i></b>
	<b>Estimated Median (Months)</b>		<b>Estimated Median (Months)</b>	
<b>BM = 1</b>	8.85	0.54	8.03	0.060
<b>BM = 2-3</b>	7.57	0.21	6.72	0.84
<b>BM &gt; 3</b>	12.6	Ref	6.33	Ref
<b><i>P</i> (overall)</b>	0.56		0.029	

  

<b>B. OS</b>				
	<b><i>EGFR/ALK+</i> NSCLC</b>	<b><i>P</i></b>	<b>Wild Type</b>	<b><i>P</i></b>
	<b>Estimated Median (Months)</b>		<b>Estimated Median (Months)</b>	
<b>BM = 1</b>	21.1	0.84	13.8	0.007
<b>BM = 2-3</b>	19.1	0.74	11.0	0.38
<b>BM &gt; 3</b>	23.7	Ref	8.1	Ref
<b><i>P</i> (overall)</b>	0.74		0.006	

*BM* > 3 were treated as reference group. Each level of *BM* was compared to the reference group  
 Abbreviations: *BM*, brain metastasis; *ECM*, extracranial metastases; *NSCLC*, non-small cell lung cancer;  
*OS*, overall survival; *PFS*, progression free survival.

**Supplemental Table 3. Multivariable analysis including ECM on PFS/OS for independent level of number of BM**

<b>A. PFS</b>				
	<b>EGFR/ALK+ NSCLC</b>	<b>P</b>	<b>Wild type</b>	<b>P</b>
	<b>Estimated Median (Months)</b>		<b>Estimated Median (Months)</b>	
<b>BM = 1</b>	9.5	0.63	8.03	0.16
<b>BM = 2-3</b>	7.57	0.11	6.72	0.79
<b>BM &gt; 3</b>	12.7	Ref	6.33	Ref
<b>P (overall)</b>	0.65		0.084	

  

<b>B. OS</b>				
	<b>EGFR/ALK+ NSCLC</b>	<b>P</b>	<b>Wild type</b>	<b>P</b>
	<b>Estimated Median (Months)</b>		<b>Estimated Median (Months)</b>	
<b>BM = 1</b>	21.1	0.76	13.8	0.09
<b>BM = 2-3</b>	19.1	0.84	11.0	0.98
<b>BM &gt; 3</b>	23.7	Ref	8.3	Ref
<b>P (overall)</b>	0.76		0.063	

*BM* > 3 were treated as reference group. Each level of *BM* was compared to the reference group  
 Abbreviations: *BM*, brain metastasis; *ECM*, extracranial metastases; *NSCLC*, non-small cell lung cancer;  
*OS*, overall survival; *PFS*, progression free survival.